REPORT

ON THE

ADMINISTRATION OF ASSAM, 1911-1912.

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REPORT

ON THE

ADMINISTRATION OF ASSAM

FOR

1911-1912.

PART I.--GENERAL SUMMARY.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

TOURS OF HIS HONOUR THE LIEUTENANT-GOVERNOR, EASTERN BENGAL AND ASSAM.

Tours.

Sir Lancelot Hare left Shillong on the 17th July 1911 for a tour in Assam. He visited in succession Gauhati, Tezpur and Dibrugarh, reached Silchar on the 9th August, and left for Dacca on the 11th.

Sir Charles Bayley paid visits to Dibrugarh and Tezpur in November 1911.

CHANGES IN THE ADMINISTRATION.

Changes in the Administration.

2. On the afternoon of the 22nd August 1911, Sir Lancelot Hare, K.C.S.I., C.I.E., resigned the office of Lieutenant-Governor of Eastern Bengal and Assam which he had held since the 20th August 1906. He was succeeded by Sir Charles Stuart Bayley, K.C.S.I.

Assam was throughout the year an integral part of the province of Eastern Bengal and Assam which was created in 1905. From the 1st April 1912 it again became a separate Administration, in accordance with the Proclamation of His Imperil Majesty the King-Emperor, made at Delhi on the 12th December 1911.

RELATIONS WITH TRIBUTARY STATES AND FRONTIER AFFAIRS.

Manipur.

3. The gross total revenue of the State was Rs. 5,18,626, against Rs. 4,95,526 in the preceding year. Receipts from land revenue increased by nearly Rs. 7,000. A prosperous year resulted in smaller remissions and a higher percentage of collections.

The total expenditure was Rs. 5,46,795 against Rs. 4,56,863 in the preceding year, the large increase being mainly due to the Coronation Durbar and to the water-works project. The reserve was depleted to the extent of Rs. 28,169, the closing balance being Rs. 3,02,956.

The rainfall was normal and the outturn of rice in the valley was good, although in places the crop was somewhat damaged by insects. There was, however, an almost complete failure of the rice crop in the Kuki villages in the south-west hill tracts. There was nothing approaching a state of famine, as the people were able to eke out their supply of rice with edible roots.

The Manipur Company, Limited, proved unable to work its silk venture at a profit.

The water-works for Imphal were not completed though considerable progress was made with the scheme.

Frontier tribes.

4. The principal event of the year was the despatch of a military expedition under the command of Major General Bower, C.B., into the Abor Hills to avenge the murder of Mr. Williamson and the party with him. Friendly mission at the same time visited the Mishmi and the Miri Hills.

The conduct of the other frontier tribes calls for no comment and no military operations against them were necessary.

In the Naga Hills, the guard which was posted at Melomi in the cold weather of 1909-10 was withdrawn. Our relations with the independent tribes on the borders of the district were friendly. Across the frontier raiding, head-taking and the burning of villages were as frequent as ever. No progress was made in the administration of the newly annexed tract of country to the east of the Dikhu, but sanction was given to the construction of a suspension bridge over the Dikhu river and a road from Tamlu through the newly acquired territory into the Sibsagar district.

CONDITION OF THE PEOPLE.

Condition of the people.

5. The general conditions of the year were on the whole favourable to cultivation although the rice crops suffered to some extent in certain localities from floods, insects, and rats.

The condition of the cultivating and labouring classes was, generally speaking, satisfactory in all districts except the Lushai Hills where scarcity of a severe type prevailed owing to the damage caused by rats to food crops.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REALISATION OF THE REVENUE.

Realisation of the revenue.

6. There was an increase of 11·5 square miles in the revenue-paying area representing a corresponding increase of Rs. 80,653 in the revenue demand. The percentage of current collections on current demand was cent. per cent. in several districts and exceeded 99 per cent. in all districts except Sylhet. The number of notices of demand issued under the Assam Land and Revenue Regulation decreased by 4,345, but it was necessary to have recourse to sales to a somewhat greater extent than in the previous year. The total demand on account of miscellaneous land revenue rose from Rs. 6,16,340 to Rs. 6,35,815 and the aggregate collections amounted to Rs. 6,22,599.

SURVEYS AND SETTLEMENTS.

Surveys and settlements.

7. In the Lakhimpur district a skeleton survey of about 90 tea grants was made during the year. In addition, thirteen other surveys, mostly linear relaying works, were executed in the several districts of the province. The Shillong Drawing office printed 41,632 copies of village maps for Assam and also carried out a good deal of miscellaneous work.

The resettlement operations in the Lakhimpur district, comprising an area of 709 square miles, were brought to a close during the year and resulted in an increase of 11·43 per cent. in the revenue assessed on ordinary cultivation. In Cachar 57 *Jangalburi* mahals were resettled. The resettlement of certain petty temporarily-settled estates in Sylhet and of Dibrugarh town was in progress at the close of the year.

LAND RECORDS.

Land records.

8. During the year 19 mandals and 1 Kanungo were added to the Land Records staff.

SETTLEMENTS FOR SPECIAL CULTIVATION (WASTE LANDS).

Settlement for special cultivation.

9. The area settled for special cultivation increased during the year by 12,727 acres and the revenue by Rs. 16,886.

WARDS' ESTATES.

Wards' estates.

10. There were five estates under the management of the Court of Wards at the close of the year. No new estate was taken under management, nor was any estate released during the year. Excepting those in the estate of the late Maulvi Golam Rabbani Chaudhuri the collections in all the estates were unsatisfactory and the balances unduly large. Payments on account of rent and cesses to superior landlords were made in full.

REVENUE AND RENT-PAYING CLASSES.

Revenue and rent-paying classes.

11. The year was on the whole a favourable one for the cultivating and labouring classes. The wages of labourers ruled high, while the prices of the principal food stuffs were lower than in the previous year.

CHAPTER III.

PROTECTION.

LEGISLATION.

Legislation.

12. The Eastern Bengal and Assam Court of Wards (Amendment) Act, 1911 (Act I of 1911), and the Eastern Bengal and Assam Military Police Act, 1912 (Act III of 1912), were passed in the Eastern Bengal and Assam Legislative Council during the year.

POLICE.

Military Police.

13. The behaviour of the men in the various Military Police Battalions was satisfactory, and there was only one serious breach of discipline. The force was tested under service conditions to an altogether unusual extent.

In January 1911 a column consisting of one native officer and 101 rifles, under the command of Major Bliss, successfully co-operated with a column from Burma in punishing the independent Naga village of Makware for a raid on a village in British Burma.

The operations rendered necessary by the murder of Mr. Williamson and his party threw very heavy work on the Lakhimpur Battalion in particular and on the Military Police generally. Officers and men alike acquitted themselves well, both in the initial advance to Pasighat and in the subsequent operations. Special mention must be made of Captain Hutchins, Assistant Commandant, whose death, while on the Abor Expedition, was deeply regretted by the whole force. Three officers and three hundred men of the Lakhimpur Battalion were employed with the Abor Expeditionary Force. The Mishmi Mission had an escort of 200 men from the Naga Hills Battalion and 150 from the Dacca Battalion, while 100 men of the Naga Hills Battalion went with the Miri Mission. The Police employed on the Abor Expedition and the two Missions all acquitted themselves well.

Civil Police.

14. Considerable progress was made with the sanctioned scheme for the reorganization of the Subordinate Police. The total cost of the Department was Rs. 19,26,849 as compared with Rs. 18,78,846 in 1910. The behaviour of the men of the Armed Reserve was, on the whole, satisfactory, and the discipline of the ordinary Reserve, except in Sylhet and Sibsagar, was fair. A higher standard of discipline was enforced, and punishments were more numerous than in the preceding year. The difficulty of finding suitable recruits locally continued to be felt, while the number of resignations was unchanged, dismissals being more frequent.

Successful measures were taken to deal with running train thefts on the Assam-Bengal Railway.

In the Constables' Training School, Silchar, drill and discipline were good.

The Police investigated a larger proportion of cases reported direct, or referred by Magistrates for enquiry. Of the cases investigated, 56·6 per cent. were sent up for trial against 57·9 per cent. in 1910.

CRIMINAL JUSTICE.

Criminal Justice.

15. The accounts of the administration of Criminal and of Civil Justice are briefer than usual. The reports of the High Court, on which the accounts are based, dealt with the province of Eastern Bengal and Assam and did not give separate treatment to Assam. Two Sessions Judges, and a Subordinate Judge vested with the powers of an Assistant Sessions Judge, were employed throughout the year. The Magisterial staff consisted of 64 Stipendiary Magistrates and 26 Honorary Magistrates. There were 35,983 reports of criminal offences, of which 13,125 were dismissed and 934 were struck off as false. The Courts dealt with 21,259 cases, 1,817 more than in 1910. In the Magistrates' Courts the number of witnesses examined was 50,784, of whom 443 only were reported to have been detained for more than three days. In Sylhet, there was a marked increase in the number of proceedings under Chapter VIII of the Code of Criminal Procedure. In the Courts of Session commitments exceeded those of 1910. Of 386 persons tried, 264 were convicted and sentenced, the cases of 4 were referred for the orders of the High Court and 118 were acquitted. There was a slight increase in the number of appeals preferred. Original orders were upheld in 64 per cent. of the cases, modified in 19·09 and reversed in 14·5 per cent. No death sentence was passed.

JAILS.

Jails.

16. Owing to a larger number of admissions during the year the average daily jail population rose from 1,929 to 1,987 and led to occasional overcrowding, which was to a certain extent responsible for the general ill-health. The year 1911 was, however, otherwise an unhealthy one, and the death-rate was consequently heavier. The net cost increased by about Rs. 16 per head of average strength.

Civil Justice.

17. There was an increase of 1,472 in the number of original suits instituted, and the receipts of the Courts rose by Rs. 18,184.

REGISTRATION.

Registration.

18. The total number of registrations slightly increased during the year, the increase being marked under the heads "sales" and "mortgages."

Ten new Companies were registered under the Indian Companies Act, most of which were Insurance Companies with small paid-up capital.

LOCAL SELF-GOVERNMENT INSTITUTIONS.

Municipalities.

19. Though there was a decrease in the local income of municipalities, their aggregate income was greater, a fact which is accounted for by the large grants for water-supply made by Government. Revised assessments yielded substantial increments in the case of two municipalities, but the percentage of collections remained almost stationary. Though there was a falling off in the number of meetings held, the average percentage of attendance rose. Some progress was made in the improvement of water-supply arrangements, particularly in Shillong and Gauhati.

Local Boards.

20. The working of the Local Boards during the year was on the whole satisfactory. The Boards expended 24·58 per cent. of their aggregate income on the promotion of education, and goodprogress was made in the opening of new dispensaries and in dealing with epidemics. The experiment of deputing Sub-Assistant Surgeons to attend markets with the object of affording medical relief to persons attending them was continued and found successful. One Veterinary Assistant is employed by each of the Boards and services of these officers are reported to have been much appreciated by the villagers.

MILITARY (VOLUNTEERING).

21. The Volunteer Corps of the province maintained their strength and efficiency.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

AGRICULTURE AND HORTICULTURE.

Agriculture and horticulture.

22. The department did useful work during the year. Some valuable research work was carried out in connection with high-land soil investigation. The use of bonemeal as a manure for winter rice and of Bordeaux mixture as a preventive of potato disease was successfully demonstrated.

The dissemination of agricultural knowledge was carried out by officers investigating outbreaks of crop disease, by the distribution of seed and implements and by successful demonstrations of the use of manure and of the treatment of crop diseases in villages.

CO-OPERATIVE SOCIETIES.

23. The steady progress which has characterised the Co-operative movement in Assam from the beginning was maintained during the year. Co-operative Societies.

WEATHER AND CROPS.

24. The weather during the year was on the whole favourable ; there were floods in June, July and August in some districts, but no unusual damage was caused. The outturn of rice exceeded that of last year by nearly one lakh of tons, and prices were on the whole slightly lower. The outturn of jute was less than last year. Weather and Crops.

FORESTS.

25. The total area of reserved forests was reduced by 24·4 square miles owing to disforestations, while an addition of 8 square miles was made to the unclassed State forests. The existing working plans were fairly worked up to save where want of labour or demand stood in the way. The gross revenue was Rs. 11,17,569 against Rs. 13,01,640 in the preceding year. The decrease was mainly due to the fact that advances amounting to Rs. 1,73,000 were received in Goalpara in the previous year for timber supplied during the year under review. Forests.

MANUFACTURES AND MINES.

26. The year was on the whole a prosperous one for the tea industry. The weather and rainfall were favourable, the demand for tea abroad was greater, and prices ruled higher than in the preceding year. The only drawbacks were shortage to some extent in labour, the increased cost of recruiting and the physical inferiority of the imported coolies. Tea.

27. Seven prospecting licenses were issued during the year. The royalty on coal and oil amounted to Rs. 64,016. Mines.

FACTORIES.

28. Eighteen factories were at work at the close of the year as in the previous year. There was a slight increase in the number of operatives employed and the percentage of children employed rose from 5·6 to 6·0. The sanitary arrangements and the general health of the operatives were satisfactory. There were no prosecutions under the Act. Factories.

TRADE.

29. The total value of the trade of Assam with other provinces in the year under review was 1,858 lakhs of rupees, of which 581 lakhs represent imports and 1,277 lakhs exports. The exports of tea increased by 307,030 maunds, the expansion being due to better outturn and higher prices. There were no fluctuations of importance in the quantity of jute exported. Of the cotton piece-goods imported, 78 per cent. in value were manufactured in foreign countries and 22 per cent. in India. Rail and River-borne Trade.

30. The aggregate value of the trade registered was Rs. 49,66,107, as compared with Rs. 5,38,620 reported last year. The figures are of no value, as the returns sent in by one registration officer were found to have been fabricated. Frontier Trade.

PUBLIC WORKS.

31. The total expenditure on Provincial Civil Works in charge of the Public Works Department amounted to Rs. 29,26,181. Of this amount, a sum of Rs. 5,08,062 was spent on Original Works in connection with provincial buildings and Rs. 1,87,948 on Repairs. On Original Works (Communications), a sum of Rs. 5,71,587 was expended and the maintenance of provincial roads absorbed Rs. 8,31,173. Public Works.

CHAPTER V.

REVENUE AND FINANCE.

32. The gross receipts for the year, Imperial and Provincial revenues included, and receipts on account of State Railways excluded, amounted to Rs. 1,58,30,909. This represents an increase of Rs. 32,63,629, over the figure for the year 1904-05, the last year for which separate accounts were kept for Assam as a separate province. Gross revenue.

Land revenue.

33. The total ordinary land revenue demand amounted to Rs. 72,36,111, of which Rs. 69,08,979 were collected and Rs. 7,615 remitted on account of local calamities. As compared with the previous year, there was an increase of Rs. 1,00,773 in the demand. The total collections of miscellaneous land revenue amounted to Rs. 6,22,599.

Salt.

34. There was only one salt warehouse in the province, at Balaganj in Sylhet. Imports increased by 23,023 maunds, and net revenue by Rs. 7,870. The wholesale price remained at Rs. 2-4 per maund.

Excise.

35. The total revenue demand amounted to Rs. 44,50,807 as compared with Rs. 43,32,811 in the previous year. Favourable settlements and a rise in the consumption of country spirit and *ganja* contributed to the increase, which represents 2·7 per cent. on the last year's revenue. Almost the whole of the revenue from country liquor is realised under the contract supply system, which has resulted in a continued decrease in drunkenness.

The contract for the working of the Jorhat Distillery was renewed for three years, with effect from the 1st April 1912, with the former contractors, Messrs. Forbes and Chalmers.

Stamps.

36. The revenue collected under the Stamp and Court Fees Acts rose from Rs. 11,39,581 to Rs. 11,85,941 during the year under report. Judicial stamps were entirely responsible for the increase.

Income-tax.

37. Income-tax receipts increased by 8·9 per cent. The final demand for the year was Rs. 3,03,044.

Provincial finance.

38. There was no separate financial settlement for Assam for the year 1911-12, as it then formed part of the late province of Eastern Bengal and Assam.

Local Funds.

39. The financial position of the funds, of which an account is still submitted to Government, was strong. The total closing balance at the end of the year was Rs. 6,55,874-6-11.

Local rates.

40. The total demand increased by Rs. 5,024 as compared with the previous year. The percentage of total collections on total demand was 87·44 as against 89·89 in 1910-11.

CHAPTER VI.

VITAL STATISTICS.

Vital Statistics.

41. The death-rate for the year 1911 was lower than that of previous year, being 23·51 as against 34·37 per mille.

The birth-rate fell from 36·52 to 31·84 per mille.

The temperature was approximately normal and crops on the whole were good.

The ratio of mortality from fever is much higher than that from any other disease.

IMMIGRATION AND LABOUR INSPECTION.

Immigration.

42. The year was again a prosperous one for the tea industry. The demand for labour steadily increased and there was a considerable increase in immigration, although this was not assisted by scarcity in the recruiting districts. The mortality during transit remained at a low figure, and the year was a healthy one in the tea gardens.

MEDICAL INSTITUTION.

Charitable dispensaries.

43. The year was a comparatively healthy one. There were 206 dispensaries working in the province at the close of the year. The number of patients treated during the year was 1,518,824 against 1,488,214 in the previous year.

In the Leper Asylum at Sylhet, which is the only institution of its kind in the province, the system of treatment with Dr. Deycke's Nastine was tried on a comprehensive scale and the results were very encouraging.

Lunatic Asylums.

44. The Tezpur Lunatic Asylum is the only institution of its kind in the province. There were 236 lunatics in the asylum at the beginning of the year and 232 at its close, of whom 79 were criminal lunatics.

Tubercular diseases were prevalent in the asylum. Special steps are being taken to segregate completely patients suffering from tuberculocis and to remedy the present overcrowding. It is anticipated that these measures will render the asylum more healthy.

45. During the year large grants were made by Government to the Shillong and Jorhat Municipalities in aid of water-supply schemes. The Shillong water-works were completed and that town has now an excellent supply of piped-water. There was a large demand for the new "Treatments" of hydrochloride of quinine, 13,986 parcels being sold to the public during the year. Sanitation.

The investigation into the causes of *kala-azar* was continued.

VACCINATION.

46. During the year, 305,845 vaccination operations were performed, against 257,693 during the previous year, the increase being chiefly in Sylhet and Kamrup. The rate of mortality from small-pox was ·25 per mille against ·28 in the previous year. Inspection work by Civil Surgeons has improved. Vaccination.

CHAPTER VII.

INSTRUCTION.

47. During the year under review expenditure increased from Rs. 13,34,580 to Rs. 16,09,062, while the number of pupils attending all classes of schools rose from 1,68,250 to 1,82,112, an increase of over 8 per cent. Education.

The demand for Collegiate and High School education continued to grow. The number of students in the two Colleges rose from 230 to 295, and that in High Schools from 8,236 to 8,924. Middle English Schools grew in number and attendance, but Middle Vernacular Schools did not keep pace with the general progress.

Primary education continued to make steady progress.

Tols declined as regards both numbers and attendance. Madrassas, on the other hand, showed some improvement in both respects.

Female education made a satisfactory advance, the number of women and girls attending school having increased from 15,799 to 17,931.

The number of Muhammadan pupils is increasing rapidly in all classes of schools.

LITERATURE AND THE PRESS.

48. The number of publications received and catalogued was 37 against 62 in the preceding year. Literature and the Press.

Sixteen newspapers were published. Their tone, with an exception here and there, was unobjectionable.

CHAPTER VIII.

ARCHÆOLOGY.

49. No new monuments were declared to be protected during the year under review.

CHAPTER IX.

MISCELLANEOUS.

VETERINARY.

50. The number of inoculations carried out by Veterinary Assistants showed a very considerable increase and was to some extent instrumental in checking the ravages of rinderpest which is responsible for half the total mortalityamong cattle from contagious diseases. The insufficiency of the existing staff and defective reporting of local outbreaks have been the principle causes which have hitherto hampered the work of the Department.

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THE REPORT.

PART II.

ADMINISTRATION REPORT.

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REPORT

ON THE

ADMINISTRATION OF ASSAM

FOR THE YEAR

1911-1912.

PART II—REPORT.

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

SECTION 1.—Physical Features of the Country, Area, Climate and Chief Staples.

Boundaries and area.

The Province of Assam, which lies on the north-eastern border of Bengal, and is one of the frontier Provinces of the Indian Empire, is situated between 22° 19′ and 28° 16′ N. and 89° 42′ and 97° 12′ E. It is bounded on the north by the eastern section of the great Himalayan range, the Frontier tribes from west to east being successively the Bhutias of Bhutan, the Bhutias of Towang—a province subject to Lhasa—Akas, Daflas, Miris, Apa Tanangs, Abors, and Mishmis; on the north-east by the Mishmi Hills which sweep round the head of Brahmaputra Valley; on the east by the mountains which are inhabited by Hkamtis, Singphos, and various Naga tribes, and by the Burmese frontier where it marches with that of the State of Manipur; on the south by the Chin Hills, the Chittagong Hill Tracts and the State of Hill Tippera; and on the west by the Bengal districts of Tippera, Mymensingh and Rangpur, the State of Cooch Behar and the Jalpaiguri district. The total area of the Province, including the Native State of Manipur (8,456 square miles), is 61,471 square miles.

Brahmaputra Valley.

2. Assam Proper, or the valley of the Brahmaputra, is an alluvial plain, about 450 miles in length, with an average breadth of about 50 miles, lying almost east and west in its lower portion, but in its upper half trending somewhat to the north-east. To the north is the main chain of the Himalayas, the lower ranges of which rise abruptly from the plain; to the south is the great elevated plateau, or succession of plateaux, known as the Assam Range, much broken at its eastern and western extremities and along its northern face, but in its central portion, from the eastern border of the Garo Hills to the watershed of the Dhansiri, a region of tableland and rolling uplands. The various portions of this range are called by the names of the tribes who inhabit them,—the Garo, the Khasi, the Jaintia, the North Cachar, and the Naga Hills. At several points on the southern side of the valley the hills of the Assam Range abut on the river, and at Goalpara, Gauhati, and Tezpur there are spurs belonging to this group on the north as well as on the south bank. The broadest part of the valley is where the river divides the districts of Sibsagar and Lakhimpur, below which the isolated block of the Mikir Hills to the south (a mass of mountains cut off from the main Assam Range by the valleys of the Dhansiri, Langpher, and Jamuna rivers), and the projecting group of the Dafla Hills to the north suddenly contract it. Forty miles lower down, it widens out, but at the lower end of the Nowgong district it is again encroached upon by the Khasi Hills, among the spurs of which the river makes its way in front of the station of Gauhati, and it is almost completely shut in just to the west of that town, below the temple-crowned hill of Nilachal or Kamakhya where the stream is not 1,000 yards broad. Beyond this point the hills recede again, and the mountains do not approach the Brahmaputra until the station of Goalpara, situated on a spur of the Garo Hills, is reached. Here at the confluence of the Manas, and between the rocks of Jogighopa and Pagla Tek, is the "Gate of Assam," to the east of which Assamese is spoken, and to the west Bengali. Beyond this point the valley again widens, and at Dhubri opens out into the great delta of Bengal.

The Brahmaputra and its Affluents.

3. Throughout its course the Brahmaputra receives a vast number of affluents, great and small, from the hills to the north and south. The greater of the northern streams are snow-fed, while those from the south (except the Dihing) depend upon the annual rains for their volume, and shrink to small dimensions in the dry season.

PHYSICAL AND POLITICAL GEOGRAPHY.

On the north the chief tributaries of the Brahmaputra are the Dibong, Dihong, Subansiri, Bhareli, Bornadi, and Manas; on the south the greater affluents are the new and old Dihings, the Disang, the Disoi, and the Dhansiri. A short distance below the junction of the last named, a considerable body of water separates itself from the Brahmaputra, and, under the name of the Kallang, goes on a tortuous course through the Nowgong district, rejoining the main stream about ten miles above Gauhati. The Kallang receives, in the Kopili, the whole drainage of the North Cachar and the Jaintia Hills, besides several minor streams from the Khasi Hills. Below Gauhati, the Kulsi and the Jinjiram are the chief southern affluents of the Brahmaputra.

The journey made by Mr. Needham, C.I.E., in 1886, and the exploration accomplished during the Abor Expedition of 1911-12, have left little doubt that the Dihang, which emerges from the Himalayas through the hills inhabited by the Abors, is the same stream as the Tsang-Po. The persistent refusal of the hillmen to admit foreigners into their country rendered it for many years impossible to explore and survey the hundred and twenty miles which intervene between the furthest point north to which we have penetrated from Assam, and Gyala Sindong, the last known station on the great Tibetan river. It is hoped that the survey parties now at work in the Abor Hills will succeed in penetrating to that point, and that the vexed question of the Tsang-Po will be finally decided. The Brahmaputra above Sadiya is far inferior in volume to the Dihong. Its course has been traversed up to the borders of Tibet.

Except at the points already mentioned, where hills impinge upon the Brahmaputra, the river flows between sandy banks, which are subject to constant changes for a breadth of about six miles on either side of the stream. Within this belt there is no permanent cultivation, nor any habitation but temporary huts erected by people who grow mustard on the *char* lands during the cold weather, and an occasional Miri village. Beyond, the level of the alluvium rises, and tillage and population take the place of sandy flats covered with long grass. Little of this is seen from the river, and the traveller up the Brahmaputra receives the impression that the country is a wilderness untenanted by man, except at the few points where, rock giving permanency to the channel, towns and villages have been established along the stream. These points are Dhubri, the capital of the Goalpara district, Goalpara, Gauhati, the capital of Kamrup, Tezpur, the capital of Darrang, Silghat, the port for Nowgong, from which it is distant 32 miles, and Bishnath, in the Darrang district. Between the last named place and Sadiya, close to the point where the river emerges from the hills, a distance of about 200 miles, there is no town or large village on the banks, Golaghat being 20 miles, Jorhat 10, Sibsagar 8, and Dibrugarh 5, away from the cold-weather channel. Proceeding inland from the belt just described, through which the river flows, one finds a country consisting mainly of alluvial flats, much of which is untilled and covered with long grass, and in the eastern portion of the valley with forest, but much also is under cultivation. The most thickly populated parts of the valley are North Kamrup, Jorhat, and Sibsagar; the most thinly Darrang, west of Tezpur, the southern part of Nowgong, Lakhimpur, north of the Brahmaputra, and the forests in the extreme east and south of the latter district. To the peopled belt on either side of the valley succeeds another where population again falls off, and extensive forests and grass savannahs reach to the foot of the hills on the north and south. The Brahmaputra is navigable by large steamers as far as Dibrugarh throughout the year, and by smaller vessels as far as Sadiya. Many of its affluents are also navigable in the rains by steamers, and at all seasons by boats of small burthen.

The Surma Valley.

4. The southern, or Surma, valley, which constitutes the second main division of the province, and comprises the two districts of Cachar and Sylhet, presents many points of contrast with that of the Brahmaputra. It is much smaller in extent, covering only 7,247 square miles, against 24,598 in the latter. This, however, excludes a portion of it which lies south of the Garo Hills and east of the old Brahmaputra, and which, though geographically a part of the Surma Valley, is not included in the Province of Assam, but forms part of the Bengal district of Mymensingh. Its mean elevation above sea-level is much lower, the cold-weather zero of the Surma at Sylhet being only 22·7 feet above the sea, while that of the Brahmaputra at Gauhati is 148·36 feet. The course of the numerous rivers which traverse it is thus exceedingly sluggish, while the stream of the Brahmaputra is swift. While the latter river hurries rapidly along, through a waste of sandy *chars*, making and unmaking its banks year by year, the rivers of the Surma Valley find their way to the great estuary of the Megna by extremely tortuous channels, the banks of which,

reinforced by the annual deposition of silt, are the highest ground in the alluvial area, and as such are the most populous and best cultivated portions. To the north of the valley stand the steep face of the Khasi and Jaintia Hills, the plateau of which rises very abruptly from the plains to a height of 4,000 feet, the tableland presenting, when seen from Sylhet, an almost level line. Near the eastern boundary of Sylhet, the plateau recedes into the interior of the hills, and a new barrier, the angular and serrated range of the Barail, or "Great Dyke," takes its place as the northern boundary of the valley. This range gradually increases in height and precipitous character as one proceeds eastwards, and at the eastern extremity of Cachar takes a curve to the north-east, thereafter forming the main axis of the Naga Hills, and eventually merging in the Patkoi. To the east the valley is shut in by the mountains of Manipur, a continuation of the succession of parallel ridges, lying north and south, into which the Arrakan Yoma Range divides as it approaches the Himalayas. On the south also these parallel ridges extend for some distance into the alluvial plain, gradually retreating as the river emerges from Cachar into Sylhet, but still preserving their uniform meridional direction, until the Bengal district of Tippera is reached.

Throughout this great alluvial plain, except in the western portion adjoining Mymensingh, the surface is broken by frequent groups of isolated hills of small height, called *tilas*. These may be regarded as continuations below the alluvium of the southern ranges of Tippera and the Lushai Hills. The most notable are the groups about Chhatak, and north of Sylhet, and the Chiknagul hills in Jaintia. In Cachar, the ridges from the south touch the Surma, or Barak, at Badarpur and at the northern end of the Tilain range, and many isolated hills rise throughout that district, chiefly to the south of the river. Except where the *tilas* and the southern ranges project, the whole valley is a vast deltaic expanse, covered with a perplexing network of sluggish streams, and liable to deep flooding in the rains. The highest ground is on the river banks, from which the surface slopes backward into great hollows, called *haors*, all of which are lakes, some of great extent in the rains, and in the greater of which water lies in some part throughout the cold season. In the deeply-flooded but populous country to the west the villages are built on artificially-raised sites along the river margins, and the ground which is thus obtained is so precious that the houses are crowded together in a manner very unlike the straggling aspect of a village in Assam.

The Surma river.

5. The Surma, or Barak, river rises in the Barail range to the north of Manipur. Its sources are among the southern spurs of the great mountain mass called Japvo, on the northern slopes of which are situated the most powerful villages of the Angami Nagas. Thence its course is south, with a slight westerly bearing, among the Manipur hills, where it receives numerous tributaries before entering British territory. At Tipaimukh, the trijunction point of Manipur, Cachar and the Lushai Hills, it turns sharply to the north, and, after emerging from the Bhuban range near Lakhipur, takes a very tortuous course, with a generally westward direction, through the district. A short distance below Badarpur, on the western boundary of Cachar, it divides into two branches, the northern of which is known as the Surma, and flows westwards, more or less closely under the Khasi Hills, having on its banks the important centres of Sylhet and Chhatak, till it turns southwards at Sunamganj; the southern, called at first the Kusiara, has a south-westerly direction, and near the confluence of the Manu river from the south again divides into two branches, the southern of which re-assumes the original name of the whole river, Barak, and, passing by the towns of Nabiganj and Habiganj, rejoins the Surma a short distance to the west of the latter place. The other arm, called first the Bibiana and afterwards the Kalni, also rejoins the Surma, north of the confluence of the Barak, at Abidabad.

The Hill tracts.

The chief affluents of the Surma on the north, after it enters British territory, are the Jiri and Jatinga from the North Cachar Hills, the Luba, Hari, Piyain, Bogapani, and Jadukata from the Jaintia and Khasi Hills, and the Maheshkali from the Garo Hills. On the south it receives the Sonai, Dhaleswari, and Katakhal from the Lushai Hills, and (in its southern branch, the Kusiara-Barak) the Langai, Juri, Manu, and Khwahi from the Tippera Hills. At Bhairab Bazar, in Mymensingh, 20 miles below the Sylhet frontier at Lakhai, it unites with the old Brahmaputra, and becomes known thenceforward as the Megna. The Surma is navigable by steamers as far as Silchar in the rains; in the cold weather, however, large vessels do not ascend above Chhatak on the northern and Fenchuganj on the southern branch. Boats of considerable burthen traverse the whole river system as far as Banskandi, east of Silchar, throughout the year, and in the rains are the most usual vehicle of trafic.

PHYSICAL AND POLITICAL GEOGRAPHY.

6. The hilly tracts included in the Province of Assam consist of the Assam Range, which is interposed between the Brahmaputra and Surma Valleys, with the Mikir Hills, the Lushai Hills, and the ridges, generally of low elevation, which run northward from Hill Tippera and the Lushai Hills into the Surma Valley. No part of the Himalayas falls within British territory. These hilly tracts have already been summarily described. The remarkable plateau of the Garo-Khasi-North Cachar Hills, which, with the sharply serrated range of the Barail and its spurs, constitutes the Assam Range, is joined at its eastern extremity by the Patkoi to the Himalayan system, and by the mountains of Manipur to the Arrakan Yoma. At its western end, in the Garo Hills, it attains an elevation of more than 4,600 feet in the peak of Nokrek, above Tura, but falls again before the Khasi boundary is reached. The highest points of the Khasi-Jaintia tableland are the Shillong Peak, 6,450 feet, the Dingyei, 6,077, Rableng, 6,283, and Suer, 6,390; but these are only the most elevated portions of a plateau, hardly any portion of which falls much below 6,000 feet and which is all inhabited and cultivated. To the east the level again falls, the highest summits not much exceeding 5,000 feet in the Jaintia Hills, and considerably less in the Cachar Hills north of the Barail. The latter range, commencing on the south-east margin of the Khasi-Jaintia plateau, where the Hari river issues from the hills, rises by sudden leaps to a considerable height, and among the hills bordering the Jatinga Valley summits of from 5,000 to 6,000 feet are found. The range then curves north-eastwards, and attains a still greater height, where it forms the boundary between the Naga Hills district and the State of Manipur. Here the greatest elevation (in British territory) is reached by the peak of Japvo, which is a little less than 10,000 feet above the sea. To the north-east of this point the mountain system of the Barail is broken up, by the influence of the meridional axis of elevation prolonged from the Arrakan Yoma, into a mass of ranges having a general north-east and south-west direction until the Patkoi is reached. The highest points in this portion are from 8,000 to 9,000 feet. Snow is frequent on Japvo and in its neighbourhood, but seldom falls further west.* It is also seen to cover the hills lying about the upper course of the Dihing as far as the Patkoi, a country as yet insufficiently explored.

The Assam Range.

Between the main axis of the Assam Range and the valley of the Brahmaputra the average height of the hills varies considerably. The country is deeply cut into by river channels, and is covered with dense forest. The isolated block of hills already referred to, lying to the east of Nowgong, called the Mikir-Rengma Hills, is cut off from the main range by low-lying valleys, and has within it summits attaining a height of 4,000 feet. Its interior is little known, the population is very sparse, and the country is densely wooded. The hills lying south of Sibsagar and Lakhimpur, and peopled for the most part by the tribes of Nagas which have not yet been brought under British administration, consist of small broken ranges, running generally north-east and south-west, or having irregular spurs leading down into the plains, usually steep on the northern side, with a more gradual slope on the south. The greater part of this tract (in which very extensive and valuable seams of coal exist) is uncultivated and forest-clad, the outer ranges being chiefly uninhabited.

On the southern face the Garo and Khasi Hills rise very abruptly from the plains, and present a succession of precipitous faces, into which the rivers, fed by the enormous rainfall of this region, have cut deep gorges as they issue upon the swamps of North Sylhet. The level line forming the horizon of the plateau is not broken until the Barail is reached, where the contour becomes rugged and irregular, though the sides are precipitous. In the Garo Hills, the lower portions of the Khasi and Jaintia Hills and the Barail range, the slopes are forest-clad. In the upper and central plateau of the Khasi Hills, and the greater portion of North Cachar, the landscape is one of undulating grassy hills, with occasional groves of pine and oak. It is believed that the forests here have been destroyed or kept down by the custom of annually burning, either for pasture or for cultivation, the long grass with which the surface is covered. Where fires are excluded, thick forests of young pine and mixed leafy trees spring up.

7. The Lushai Hills, which divide Assam from Burma, consist of sandstones and shales of tertiary age thrown into long folds, the axes of which run nearly north and south. From the general character of the deposits, it seems probable that they were laid down in the delta and estuary of an immense river issuing from the Himalayas, to the north-east of Assam during tertiary times, and flowing due south

The southern hills.

* There was a snow-storm on the Shillong Peak on January 9th, 1892. Very little moisture is precipitated in Shillong during the winter, but ice frequently forms.

through the country now occupied by the Naga and the Lushai Hills. The hills are for the most part covered with dense bamboo jungle and rank undergrowth, but in the eastern portion, owing probably to a smaller rainfall, open grass-covered slopes are found, with groves of oak and pine interspersed with rhododendrons. These hills are inhabited by the Lushais and cognate tribes, but the population is extremely scanty. The outlying slopes in the Cachar district constitute a great forest reserve, which is now being gradually thrown open to cultivators from the more congested parts of the district; in Sylhet they have been largely opened out for the growth of tea. Till lately, however, they were left to be roamed over by Tipperas and Kukis, whose annual *jhums* were the only cultivation which they supported.

Geological features.

8. The Province of Assam contains within its boundaries, as already mentioned, two great alluvial plains, separated by a central mass of mountains called the Assam Range, and further defined,—the Brahmaputra Valley by the Himalayas on the north, and the Surma Valley by the meridional ranges, the prolongation of the Arrakan Hill system, on the south. To the east of both valleys is the great extension of the mountain system of Northern Burma, which eventually unites with the Himalayas in the Patkoi. The geology of this region, therefore, falls apart into that of the hill tracts, which are denuded, and of the alluvial plains, which are being formed by the same process.

The Himalayas.

9. The Himalayan system, which lies to the north of the Brahmaputra Valley, has on several occasions and at different places been penetrated beyond the Assam frontier by geological observers. In it are found the same characteristic formations as distinguish the sub-Himalayan rocks throughout their whole length from the Indus to the eastern limit of observation. The outermost hills consist of great thicknesses of soft massive sandstones, of Upper Tertiary age and fresh-water origin, the dip of which is towards the interior zone of metamorphic rocks. These are known as the Siwalik series and we have no reason to doubt that they occur continuously all along the base of the Himalayas. As in the original Siwalik area to the west, nests and strings of lignite are frequently found in these rocks, and have given rise to expectations, proved on enquiry to be baseless, that useful coal might be discovered in them. Immediately within these and faulted against them are the ancient sandstones of the Gondwana series, of the same age as the Bengal coal series. They also contain coal but reduced by crushing into such a friable condition and into such thin and discontinuous seams as to be economically useless. These beds have been proved to exist in the Buxa Duars, in Bhutan, in the Aka, Dafla, and Abor Hills. In the Dafla and Abor Hills have also been found a series of volcanic traps inter-bedded with the Gondwana sandstones. There is also reason to believe that marine beds of Permocarboniferous age occur at the base of the Gondwanas in the eastern part of the area. This belief is founded on the occurrence of fossiliferous limestone boulders and pebbles in the river-beds east of Sadiya, whence they are conveyed by boat down the Brahmaputra, and form almost the sole lime-supply of Upper Assam, in the Subansiri gorge and in the Abor Hills.

Beneath the Gondwanas, and probably faulted against them are a much older series of metamorphosed rocks consisting of slates, schists, quartzites and dolomites, assigned to the Daling and Buxa series. These beds in many cases occur beyond the Assam frontier. It is by metamorphic rocks of this type that the Brahmaputra Valley is closed in on the east. In many places, particularly near the Dihong river and in the Aka Hills high level terraces of Pleistocene age form the outermost series of hills.*

The Assam Range.

10. The Assam Range, which divides the Brahmaputra and Surma Valleys, is separated by well-marked physical and geological features into two great regions, the boundary between which follows the line of the Dhansiri Valley and the Barail range to the point where the latter commences at the south-eastern corner of the Jaintia Hills. The mountains to the west of this boundary, which include the Garo, the Khasi, the Jaintia, and the Mikir Hills, with so much of North Cachar as lies north and west of Barail, have been described by geologists under the name of the Shillong Plateau. The area to the east of this boundary, including the Barail, the ranges of Manipur, and the Naga Hills, is orographically a part of the Burmese mountain system, and of a widely different geological character.

The Shillong plateau.

11. The Shillong Plateau consists of a greas mass of gneiss, bare on the northern border, where it is broken into hills, for the most part low and very irregular in outline, with numerous outliers in the Lower Assam Valley, even close up to the Himalayas. In the central region the gneiss is covered by transition or sub-metamorphic rocks, consisting of a strong band of quartzites overlaying a mass of earthy schists.

See "Records of the Geological Survey of India," Volume XXXI, pages 179-204, and Volume XLII, pages 231-253.

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In the very centre of the range, where a tableland attains its highest elevation, great masses of intrusive diorite and granite occur; and the latter is found, in dykes piercing the gneiss and sub-metamorphic series, throughout the southern half to the boundary of the plains. To the south, in contact with the gneiss and sub-metamorphics, is a great volcanic outburst of trap, which is stratified, and is brought to the surface with the general rise of elevation along the face of the hills between Shella and Thariaghat south of Cherrapunji: this has been described as the "Sylhet trap." South of the main axis of this metamorphic and vulcanic mass, and almost at the edge of the central intrusive dykes of granite and diorite, fossiliferous strata commence belonging to two well-defined series, (1) the Cretaceous, and (2) the Nummulitic. On their northern margin both rest conformably on the metamorphics, and rapidly increase in thickness as one proceeds southwards. On the south the whole series bends downwards in a monoclinal flexure, and south of Cherrapunji disappears below the alluvium of the Surma Valley.

The cretaceous series, where last seen, occupies about 1,500 feet between the Sylhet trap and the Nummulitic limestone; it varies much in the character of the deposits, consisting chiefly of sandstones, locally massive, coarse, earthy, or ochreous, with intervening dark and pale shales and some layers of flaky earthy limestone. The series includes several beds of coal, of which the best known are the Maobehlarkar coal, a few miles south of Mauphlang, which for many years was worked for the supply of the station of Shillong, the extensive and valuable coal-field of Darrangiri, on the Someswari river in the Garo Hills, and some coal close to the level of the plain where the Jadukata river debouches near Laur in Sylhet, another outcrop to the west of the last mentioned, on the Maheshkhali river in the Garo Hills, is very possibly continuous with the latter, and, if so, promises to be of great value. An isolated specimen of the same series is found on the Nambar stream, on the extreme eastern margin of the Shillong Plateau in the Mikir Hills, a few miles east of Borpathar. This cretaceous coal is brown in colour, compact, splintery, with a conchoidal fracture, and contains numerous specks and small nests of fossil resin.

The Nummulitic series, which overlies the cretaceous, varies greatly in thickness in different parts of the range. In the Garo Hills west of the Someswari it is insignicant; in the Khasi Hills it is much more massive. Below Cherrapunji it has a thickness of 900 feet in the Tharia river, consisting of alternating strata of compact limestones and sandstones. It is at the exposure of these rocks on their downward dip from the edge of the plateau that are situated the extensive limestone quarries of the Khasi Hills, whence Eastern Bengal is supplied with lime of the best quality. On the level of the plateau above, the same strata are found, but have undergone extensive denudation owing to the solubility of the limestone rock in water and the enormous rainfall of that region. In the whole of the southern face of these hills are found numerous caves and underground watercourses due to this cause; and on the plateau of Cherrapunji, while the Nummulitic series survives in the rocks on which the Khasi village is built, and in the ridge to the west of the old station the site of the station itself has been swept perfectly clear of it, with the exception of a few rounded hills composed of tumbled fragments of the harder sandstones which alternated with the calcareous beds.

Before the upthrust of the Barail range the Nummulitic beds, like the other members of the series, retire in a north-easterly direction, and their eastern limit has not been traced satisfactorily.

This series also includes coal beds, several of which have been worked. The best known are the Cherra mines, in a seam situated in the Nummulitic mass to the west of the station, and the Lakadong mines in the Jaintia Hills. The Nummulitic coal is black, bright, with a cuboidal fracture, and very bituminous.*

The Barail Range.

12. There is evidence that, as the Nummulitic series overlies the cretaceous, the former was in its turn overlain (perhaps only on its outer margin) by a third, or Upper Tertiary, series. These rocks have been traced from the western margin of the Garo Hills, along their southern face (where, south of the Someswari, the Tertiary zone is 14 miles wide), and beneath the scrap of the Khasi Hills, where they have been almost entirely removed from the plateau by denudation. East of Jaintapur the soft massive greenish sandstones of this formation appear again in force, and they rise rapidly from this point into the Barail range. Not only by their appearance but also by the occurrence in them of vertebrate fossils in the Garo Hills near the Brahmaputra river it is evident that they are essentially a part of the great Upper Tertiary series of river deposits known as the Siwaliks. To this series, apparently belong also the *tilas* of the

* *See* "Memoirs, Geological Survey of India," Volume VII, pages 151-207, and Volume XLI, pages 21-31.

Sylhet and Cachar plain, and the low meridional ranges of the Tippera and the Lushai Hills, which run up into it on the south; and the valley of Cachar seems to be excavated out of the broken ground where these two conflicting strikes, the west-east of the Barail, and the south-north of the southern ridges, meet. West of Cachar, the Barail curves north-eastwards, and the southern ranges take the same direction, till eventually the two lines are found in confluence.

Of this second great division of the Assam range we know something of the north-western face, looking down upon the Sibsagar and Dibrugarh plains, but of the interior very little. A reconnaissance was made in the cold weather of 1881-1882, through the eastern and northern portions of Manipur and another, in 1911, through the district of the Naga Hills, which have given some information regarding the rocks of these regions.

The whole of the western portion of this division of the Assam range, from the rise of the Barail in south-eastern Jaintia to the peak of Japvo in the neighbourhood of Kohima, would appear to be composed of the same Upper Tertiary sandstones, corresponding, as has already been mentioned, to the Siwaliks. The same rocks seem to be continued along the south-eastern margin of the Brahmaputra Valley in Sibsagar and Lakhimpur. The names of Dihing series and Tipam series have been given to the Upper and Lower subdivisions respectively of these beds.*

Coal-fields and oil of Upper Assam.

13. The north-western face of this region, lying along the Dibrugarh and Sibsagar districts, contains several very important coal-fields, which constitute the chief mineral resource of the province. The coal-measures consist of an alternating series of shale, sandstone and coal with a few calcareous layers and some 2,000 feet thick. Their age is still uncertain. They are beyond doubt newer than the Disang series (probably cretaceous) mentioned below, as they occur without exception to the north-west of a great thrust fault which separates the latter series from the coal-measures and the Tipam sandstones. Equally must we regard them as older than the Tipam series, their north-western contact with which is invariably a thrust plane, while on the south-east they pass gradually up into them. The coal is of superior quality, and not unlike the Nummulitic coal of the Khasi Hills, though quite different from the Cretaceous coal of the same region; but the place of the coal in the series where it occurs in Upper Assam renders it extremely difficult to correlate with the Nummulitic coal of Cherra and Lakadong. On the whole it is most likely that they will prove to be of Middle Tertiary (Miocene) age. Along the Buri Dihing and near the exit from the hills of the Dikhu, Safrai, Jhanzi, and Disoi rivers, the coal-measures are exposed. The greatest of the fields is that of Makum, on the Dihing in Lakhimpur, where there are several seams of which one averages not less than 50 feet in thickness. The total quantity of workable coal has lately been estimated as 90 million tons. Other valuable coal-fields are those of Jaipur and Nazira.†

Not the least interesting feature of these coal-measures is the association with them of petroleum oil springs, of which those of the Makum fields have been worked since 1899, the refinery being at Digboi.

The Inner hills of the Naga and Manipur country.

14. Belonging to an older geological period than the Tipam sandstone or the coal-measures, and separated from both of them by a great thrust-fault, are, as already mentioned, the Disang series. These are a series of hard sandstones, slates, and shales with quartzose beds, supposed to be identical with the Negrais of the Northern Arrakan group of Burma. No fossils supplying any sure evidence of age have as yet been found in these beds, but there is a certain amount of indirect evidence to show that they are Cretaceous. Still further east is a considerable trappian intrusion, consisting of serpentine dykes running north and south, identical in composition with those of Burma. Near Chimi in the Naga Hills a conglomerate containing fragments of serpentine occurs, low down in the Disang series. It is, therefore, likely that the greater part, if not all, of the Disang series was deposited after the intrusion of the serpentine, which may be as old as Trias.‡ The Patkoi and Singpho Hills to the north-east of the Dihing are believed to consist of Upper Tertiary rocks.

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* *See* "Memoirs, Geological Survey of India," Volume XII, Part 2; and "Records, Geological Survey of India," Volume XXXI, pages 179-204.

† *See* "Records, Geological Survey of India," Volume XL, pages 283-319; and "Memoirs, Geological Survey of India," Volume XLI, pages 15-21.

‡ *See* "Memoirs, Geological Survey of India," Volume XIX, Part 4; and "Records, Geological Survey of India," Volume XL, pages 235-288, and Volume XLII, pages 254-263.

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The alluvium.

15. Turning now to the alluvium, the marked difference in the physical geography of the Brahmaputra and the Surma Valleys, both of which belong to the great Indo-Gangetic plain, has already been noticed. The former is at a considerably higher elevation above sea-level than the latter, and the fall is consequently greater. The following are the heights above mean sea-level of the chief points (at the surface of the alluvium) in the Brahmaputra Valley :—

	Feet.
Sadiya	410
Dibrugarh	348
Sibsagar	319
Tezpur	256
Gauhati	163
Gealpara	150
Dhubri	118

The valley has thus, in a distance of about 450 miles, a fall exceeding 300 feet. In the Surma Valley, on the other hand, the following are the heights :—

	Feet.
Silchar	87
Sylhet	48
Chhatak	41

In consequence of this greater fall, the rivers in the Brahmaputra Valley tend to cut away their banks, whilst those in the Surma Valley tend to raise them. The former is, indeed, most correctly described as in great part a gigantic *khadar* or strath, within which the river oscillates to and fro, while the latter is a delta in the process of formation. Nearly the whole of the central portion of the Brahmaputra Valley consists of fine greyish white sand, lightly covered by a layer of clay; this is diversified near the rocks which occasionally impinge upon the river by beds of strong sandy clay, derived from their detritus. Away from the river the alluvium is more consolidated, and clay, due to the decomposition of the sand, predominates. Throughout this surface there are found here and there (as in the southern portions of the Sibsagar district in the plain of Biswanath, and in the ridge of Tezpur) more elevated tracts which seem to represent a more ancient *bhangar*, or older alluvium, the greater part of which has disappeared. Such places, where they have been laid bare by the river, are easily distinguishable, by their closer and heavier texture and by their higher colour, from the shifting grey sands of which the rest of the trough is composed, and are often indicated by a name chosen for their peculiar features (*Ranga-mati* "coloured earth," *Ranga-gora* "coloured bank").

In the Surma Valley the process of deltaic formation (whether because depression of the surface has proceeded *pari passu* with alluvial accretion, or because the deposition of silt is slower and less copious than in the central portion of the Gangetic delta) is less advanced than anywhere else in the great alluvial plain. As already explained, the river banks are almost the only high land (always, of course, excepting the *tilas* and hill ranges) in the valley, and behind them lie great basins, or *haors*, which are deeply covered with water half the year. In the flood season the rivers drain into these *haors*, and there deposit their silt, the water emerging when the river falls perfectly clear. This process results in a very noticeable raising of the level of these basins; the Chatla *haor*, a great depression in South Cachar, which receives the floods of the Barak, is said to have risen nearly two-and-a-half feet between 1872 and 1892; the extensive Hakaluki *hoar* in South Sylhet, which receives the Langai, is likewise steadily diminishing in depth. One remarkable event in the history of Western Sylhet was the diversion of the Brahmaputra, which, till the commencement of the present century, flowed east of Mymensingh, and of the great tract of old raised alluvium called the Madhupur Jungle, into a new course far to the west. Previously to this diversion, which has now brought the Brahmaputra, as a delta-forming agency, into direct competition with the Ganges, the former river threw the greater portion of its lighter silt into *bils* of West Sylhet, and thus co-operated in raising that region. Now the Surma Valley depends for its accretions on the purely rain-fed floods of the minor rivers which traverse it, and which are, of course, far inferior as silt-bearers to the great glacier-fed streams that drain the mighty chain of the Himalayas.*

* *See* "Manual of the Geology of India," Second Edition, pages 439-443; and "Records, Geological Survey of India," Volume XXXI, pages 196-198.

Climate. General remarks.

16. The Province of Assam is freely open to moisture-laden winds from the Bay of Bengal and lies beyond the influence of the dry air current which frequently blows down the Gangetic plain into Bengal during periods of hot weather; its climate is therefore notoriously damp. In the cool season dense fogs prevail in low-lying districts and rainfall is of occasional occurrence during the passage of cold weather storms across north-east India. In the spring months frequent thundershowers occur, and in April and May these are supplemented by the melting of the winter snow accumulations in the Himalayas, thus causing a sudden rise of the rivers. About the middle of June the spring rains merge imperceptibly into the rainfall of the south-west monsoon which lasts until October. After this rainfall gradually diminishes to the end of the year.

Observing Stations.

17. There are in all eight meteorological stations in the province, *viz.*, at Dibrugarh, Sibsagar, Tezpur, Gauhati, Dhubri, Shillong, Cherrapunji and Silchar, where systematic observations are regularly taken.

Temperature.

18. The mean temperature of the plains portion of the province is, for a sub-tropical country, generally low. The following are the latest normals:—

Average monthly mean temperature.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole year.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Silchar	65·0	68·0	74·6	78·5	80·7	82·7	83·7	83·1	83·1	80 5	74·2	67·3	76·9
Dhubri	63·1	66·5	74·4	79·1	79·6	81·0	82·1	82·3	81·3	78·8	71·7	64·5	75·4
Sibsagar	59 9	63·0	69·3	73 9	78·5	82 5	83·7	83·3	82·1	77·5	68·8	60·9	73 6
Tezpur	62·3	65·3	72·1	75·5	79 4	82 5	83·5	83·1	82·7	78·6	70·5	63·6	74·9
Dibrugarh	59·9	63·1	68·9	72·4	77·5	80·5	81·3	81·2	80·9	77·0	69·5	61·7	72 8
Gauhati	61·9	64·8	72·3	77·0	79·9	82·7	84·2	83·9	83·3	78·9	71·1	63·3	75·3

It will be seen that Sibsagar, in the upper half of the Assam Valley, has a lower cold weather, and higher rainy season, temperatures than Tezpur, Gauhati and Dhubri in the lower half; and that there is a general coincidence throughout the year between the monthly means for Dhubri and Silchar. These points may probably be taken as typical of the greater portion of the plains of Assam.

Winds.

19. The wind circulation differs considerably in the two valleys. In the Brahmaputra Valley according to the data of Sibsagar and Dhubri east to north-east winds prevail throughout the year except at the height of the rains. In the Surma Valley, as represented by Silchar, the direction is not so steady, being almost westerly from July to September, from some point between east and south during the period October to April and north-north-easterly in June. Over the western portion of the Assam Range the south-west wind from the Bay of Bengal sweeps with considerable force throughout the spring months; while during the rains the direction changes to south or south-east with an occasional northing.

Calms are frequent in both valleys during the cold weather and rains.

Storms often occur in the spring months, generally accompanied by high winds and heavy local rainfall. The valleys and hills of the Shillong plateau assist in the formation, and determine the direction, of these disturbances, which are most common in the lower portion of the Assam Valley. Cyclonic storms from the Bay of Bengal occasionally give heavy rainfall to the western portion of the range and the plains at its foot; they most often occur at the close of the rainy season.

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Humidity.

20. The average monthly mean relative humidity of the stations is shown below:—

Average monthly mean relative humidity at 8 hours.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole year.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Silchar	91	86	81	83	85	89	90	91	90	89	87	89	88
Dhubri	92	85	76	80	87	91	91	91	91	89	88	90	88
Sibsagar	98	97	92	91	91	91	92	94	94	96	97	98	94
Tezpur	93	88	81	84	87	90	91	93	91	89	89	93	89
Dibrugarh	96	92	86	89	89	92	93	94	92	89	90	95	91
Gauhati	96	89	79	82	86	88	88	83	88	89	93	97	89

This distribution of humidity resembles that of the Bengal delta, and differs greatly (except, of course, in the rainy season) from the data afforded by stations situated similarly in the Ganges Valley. Taking the year as a whole, the humidity of the climate of Sibsagar is exceeded by that of no other meteorological station in India.

Cloud proportion.

21. The following figures show the recorded averages of cloud proportion (complete overclouding being represented by 10):—

Average of cloud proportion at 8 hours.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole year.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Silchar	2·4	3·2	3·8	5·5	6·3	7·7	8·0	8·2	7·5	5·2	3·6	2·8	5·4
Dhubri	1·8	2·3	2·3	4·8	6·2	7·8	7·8	7·6	7·0	3·6	1·6	1·1	4·5
Sibsagar	7·1	6·3	5·9	7·3	7·8	8·6	8·8	8·6	8·2	6·9	5·8	5·4	7·2
Tezpur	2·7	3·4	3·3	5·6	6·4	7·6	8·4	8·1	6·9	4·4	2·7	2·0	5·1
Dibrugarh	4·7	5·1	5·6	6·6	6·6	7·9	8·2	8·3	7·2	4·7	3·3	2·7	5·9
Gauhati	6·8	5·2	4·6	5·7	6·7	8·1	8·2	8·0	7·0	5·7	5·6	7·2	6·6

Sibsagar is the most cloudy station in India. This peculiarity is probably due to the regular prevalence of dense fogs (which are counted as cloud in the table) during the cold weather in the Assam Valley, and to the copious spring rainfall. In the Surma Valley fogs are decidedly less prevalent, and less dense when they occur, than in that of the Brahmaputra, and are also less common in the upper part of the valley, where Silchar is situated, than in the western half.

Rainfall.

22. The distribution of rainfall in Assam is that portion of the meteorology of the province about which most information exists, and also that in which it differs most remarkably from other parts of India. Besides the observations taken at district and subdivisional headquarters, the rainfall is as a rule recorded at every tea garden. There are thus abundant materials for the study of the subject. The table below has been constructed to show separately the rainfall of the three seasons into which the year falls apart, in the Brahmaputra and Surma Valleys and the intervening hill

region, respectively. The stations chosen are those at which observations have been recorded for the longest time:—

	Autumn rainfall (October and November).	Winter rainfall (December, January and February).	Spring rainfall (March, April and May).	Monsoon rainfall (June, July, August and September).	Total.
1		3	4	5	6
Brahmaputra Valley.					
Dhubri	3·97	1·12	22·27	68·74	96·10
Goalpara	4·19	1·21	22·92	62·92	91·24
Gauhati	3·49	1·66	18·63	42·88	66·66
Tezpur	4·22	1·91	17·90	48·51	72·54
Nowgong	3·95	1·58	15·93	56·59	78·05
Sibsagar	6·14	3·64	26·64	59·46	95·88
Dibrugarh	6·02	4·74	28·51	72·90	112·17
Hill Districts.					
Tura	8·33	1·43	25·12	91·63	126·51
Shillong	7·07	1·54	15·99	55·94	80·54
Cherrapunji police station	15·28	2·91	89·03	318·74	425·96
Kohima	5·38	1·95	12·71	55·10	75·14
Surma Valley.					
Sylhet	9·78	1·94	40·49	106·22	158·43
Silchar	8·16	3·38	36·45	74·32	122·31
Manipur and Lushai Hills.					
Manipur	6·32	3·00	14·86	37·64	61·82
Aijal	7·12	2·29	19·00	52·93	81·34

This table exhibits, in a very conspicuous manner, the chief feature of the Assam climate, both in the Brahmaputra and Surma Valleys, *viz*, its copious rainfall between March and May, at a season when throughout northern India generally precipitation is comparatively light. It also indicates the existence, in the Bramaputra Valley, of a middle region (Gauhati, Tezpur, Nowgong), where the spring and monsoon falls are less than at either extremity of the valley. This is probably due to the fact that south of this portion lies the most lofty part of the Shillong plateau, on the southern face of which (at Cherrapunji) and over the central tableland the monsoon currents are drained of their humidity. To the west of this central plateau the valley is open to the winds of the Bengal delta; and to the east the average height of the range falls greatly, admitting the south-west monsoon, by the gorge of the Jatinga Valley, over the low uplands of North Cachar and down the long valley of the Dhansiri, into the great plain of Sibsagar and Lakhimpur.

In the Surma Valley, the copiousness of the spring rainfall is even more conspicuous than in Assam Proper. The recording stations here are, unfortunately, rather close to the southern face of the Assam Range, so that they do not very accurately represent the mean rainfall of this region.

The few stations for which observations have been recorded in the hill region have the character of their rainfall determined very largely by local conditions. Tura, the headquarters station of the Garo Hills, is situated (at an elevation of only 1,323 feet above the sea) on the northern skirts of the range which forms the main axis of the hills, and rises south of the station to a height of 4,652 feet in the peak of Nokrek. It is thus greatly sheltered from the monsoon currents, which expend their moisture upon the ridge at its back. Similarly, Shillong, though only 30 miles distant from Cherra, has the clouds drained of their humidity long before they reach it by the immense precipitation along the southern edge of the plateau and in the central

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tableland, which lies some 1,000 feet above the site of the station. Cherrapunji, on the other hand, is so placed as to exemplify all the conditions needed for a great rainfall. It stands, immediately overlooking the plains, at a height of 4,455 feet, on a small plateau of thick-bedded sandstones, bounded on two sides by 2,000 feet of sheer descent, which close in gorges debouching southwards on Sylhet, which is practically at sea-level. The south-west wind, sweeping over the inundated alluvial tract, blows up these gorges, as well as on the southern face of the general scrap, and, having reached the head of the gorges, ascends vertically. The plateau is thus during the summer months nearly surrounded by ascending currents of saturated air, the dynamic cooling of which is the cause of the enormous precipitation. The annual average varies greatly in different parts of the station, although the whole extent of the plateau is not much more than a couple of square miles. Some of the earlier registers, which were those of rain gauges near the edges of the plateau, show a higher precipitation than those kept in recent years nearer its centre. The fall has varied greatly from year to year: 905 inches were recorded in 1861, and in the month of July of that year 363 inches fell. In 1873 the total fall was only 283 inches.

Kohima is situated on a ridge north of the great mountain mass of Japvo (9,890 feet high), and is thus, like Tura and Shillong, protected from the full force of the monsoon currents.

Effect of climate on health and on crops.

23. These being the general characteristics of the climate of Assam, it will readily be understood that in its effect upon human health and economic conditions, it presents the usual features of a cool, equable, humid, sub-tropical region. *Kala-azar*, malarial fevers, bowel complaints and cholera are the most prevalent forms of sickness. The nature of *kala-azar* was for long a source of conflict amongst medical men, and it was at one time believed to be a malignant type of malaria complicated by the presence of the *dochmius duodenalis* (*ankylostomiasis*), a small worm which has its habitat in the small intestine and causes profound anæmia. It is now known to be due to a parasite in the blood called Leishmania Donovani, a trypanosome. This is chiefly found in the liver, spleen and bone marrow. The heavy mortality from this cause was first noticed in 1882 in certain villages along the northern terai of the Garo Hills, and in 1884 the number of deaths became so great that special relief work was organised. The disease then spread through the Goalpara subdivision, the Kamrup and Nowgong districts and the subdivision of Mangaldai, and made its appearance in Tezpur and Bishnath. The mortality attending its progress has been terrible, and tracts, which before its advent were covered with thickly-peopled and prosperous villages, have been left by it deserted and uncultivated. Whole villages have thus disappeared, and large areas of land have been thrown out of cultivation. Between 1881 and 1891 the population of Kamrup decreased by 1·6 per cent., and during the next ten years by 7·1 per cent., while in the neighbouring district of Nowgong the population declined by more than one-fourth owing to this and other causes. It was impossible to segregate the sick who seldom died in less than three months and sometimes lingered on for a couple of years, and little or nothing could be done to check the terrible progress of the disease. Fortunately, however, it never gained a foot-hold in Sibsagar and Lakhimpur, and it is now dying out in Lower and Central Assam.

Malaria lurks chiefly in the broken country forming the skirt of the Assam Range, where the long low valleys are seldom stirred by the strong winds which blow on the southern face. In the open country away from the hills it is seldom severe; and the plains of Sibsagar and Dibrugarh, with the southern portion of Sylhet, are probably throughout the whole of India, outside of the hills, the tracts which are most suited for habitation by Europeans, who generally enjoy excellent health. Notwithstanding the great water surface of Sylhet, and the deep flooding which it undergoes in the rains, it is generally a healthy district, though of recent years the North and South Sylhet subdivisions have been suffering from a peculiarly malignant form of malarial fever which has had a most prejudicial effect upon the health of the people. Cachar, which is more confined by hills, is less healthy. The climate of the hills is healthy or the reverse according to their elevation. The whole of the central plateau of the Shillong Range is very salubrious, and the same is the case with the Naga Hills. The Garo and North Cachar Hills, on the other hand, are low and feverish.

The copiousness of the spring rains, and the steady prevalence of moisture throughout the year, are extremely favourable to the two great crops of the province, rice and tea. The cultivation of the former resembles in its main features that of the same staple throughout Bengal. But in Assam and Sylhet tea yields more largely and can be plucked and manufactured more continuously than in any other part of India.

Famine, or even general scarcity, due to drought, is unknown in the province, though unfavourable distribution of the rainfall may result in short harvests. Losses from inundation are more common, though seldom so general or permanent as to occasion serious distress.

Earthquakes.

24. A full account of the Cachar earthquake of the 10th January 1869 has been published in the "Memoir of the Geological Survey," Volume XIX. Another severe shock occurred in September 1875, which did some damage to houses in Shillong and Gauhati; and Silchar was again visited by an earthquake in October 1882, but all previous seismic disturbances were completely thrown in the shade by the earthquake of June 12th, 1897, which was the most severe and disastrous of which there is any record in Assam, or indeed in India. The station of Shillong was levelled with the ground, nearly all masonry buildings in Gauhati and Sylhet were completely wrecked, and much damage was done in Goalpara, Nowgong and Darrang. Two Europeans and 1,540 natives lost their lives, the majority of the latter being killed by landslips in the hills and by the falling in of river banks in Sylhet. In the plains large tracts of land subsided and were covered with sand and water, and the levels of the country were so affected that the towns of Goalpara and Barpeta became almost uninhabitable during the rains. The total cost incurred on special repairs to public works necessitated by the earthquake has been over 37 lakhs of rupees, but this sum falls short of what is required to restore them to the former condition. To this must be added the damage to private property of which it is difficult to form an estimate.

Chief staples—food-grains.

25. The principal and almost the only food-grain of the plains portion of the province is rice. The production of this staple is carried on generally under the same conditions as in Bengal; but the time of sowing and reaping, and the names given to the several crops, vary much in different parts of the province.

Brahmaputra Valley.

26. Generally speaking, the country on either side of the Brahmaputra falls into four classes. The first is the *chapari*, or land in the immediate neighbourhood of the river, which is heavily flooded during the rains. It is, as a rule, covered with high grass jungle, which has to be cut down and burned before it can be brought under cultivation; but when the floods do not rise too soon, it yields excellent crops of *ahu* (*ashu*, *aus*), or early rice. The seed is sown in March or April and reaped soon after the setting in of the rains from June to August. Behind the *chapari* comes a belt of low-lying land, in which *bao*, a long-stemmed variety of rice, is grown. It is usually sown in April or May and reaped in November and December. *Ahu* is sometimes mixed with *bao*, in the hope of getting a crop before the river rises. The level of the country then gradually rises above the reach of ordinary floods, and *sali*, or transplanted winter rice, becomes the staple crop. The grain is sown in nursery beds, the seedlings are transplanted in June or July, when they are about two months old, and the harvest is reaped in November, December and January. *Sali* is divided into two main varieties, *bor* and *lahi*: the former gives a heavier yield, but ripens later and requires more water than *lahi*, and is therefore usually planted on lower land. Beyond this again comes the submontane tract,—the level of the land here is higher, and the fields are often irrigated from hill streams. The chief crop is *sali*, or a transplanted form of *ahu* known as *kharma*. This land is practically free from all risk of flood, and artificial irrigation renders the harvest practically sure.

Surma Valley.

27. The conditions of the Surma Valley are somewhat different. There is no *chapari*, and the banks of the rivers are the highest and the most fertile part. In the eastern part of Sylhet, the bulk of the land resembles that found in the broad belt of permanent cultivation in Assam, and the staple crops are *sail* and *aus*: the *sail* is transplanted and reaped from the middle of November to the middle of January. The *aus* is a comparatively small crop; it is harvested between May and August. The western portion of Sylhet becomes one great swamp in the rains and is fit only for the cultivation of *aman*, a form of long-stemmed rice; it is sown broadcast from mid-March to mid-May. A fourth kind of rice, called *sail bora* or *boro*, is grown in the large *haors* or basins. It is sown at the end of rains and harvested about May, and gives an exceptionally large yield per acre.

In Cachar, the rice crops resemble those of Sylhet, consisting of the early and late *aus*, harvested between June and September, and the *sail* and *asra*, reaped in November and December.

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Area under crops.

The following table shows the area, in thousands of acres, of the principal crops in the plains districts of the province. Reliable statistics are not available for the permanently-settled portions of Goalpara and Sylhet:—

Districts.	*Sali* and *bao* or *aman*.	*Ahu* or *aus*.	Mustard.	Sugarcane.	Pulse.	Tea.	Other crops.*	Total.	Deduct twice cropped.	Total cultivated area.
1	2	3	4	5	6	7	8	9	10	11
	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.	Acres, thousands.
Cachar	195	42	10	8	3	60	40	358	40	318
Sylhet	1,737	329	50	7	3	77	409	2,711	148	2,563
Goalpara	221	84	42	1	5	1	86	440	60	380
Kamrup	336	184	65	6	24	3	85	703	105	598
Darrang	187	44	19	3	10	43	43	349	21	328
Nowgong	141	45	51	1	23	12	49	321	32	289
Sibsagar	353	28	31	6	11	85	102	610	28	582
Lakhimpur ...	140	21	10	4	8	74	43	300	12	288
Total ...	3,309	772	278	36	86	355	857	5,792	446	5,346

* Includes land planted with rice seedlings.

Thus, of the total cultivation, 57 per cent. is *sali* and *bao*, 13·3 per cent. *ahu*, 6 per cent. tea, 4·8 per cent. mustard, 1·5 per cent. pulse and 0·6 per cent. sugarcane. In the temporarily-settled areas of Sylhet and Goalpara the rice crop is usually distributed in the following proportions:—

	Sali and bao.	*Ahu.*
Sylhet	64·1	12·1
Goalpara	50·2	19·1

For the Assam Valley the proportion is *sali* and *bao* 50·6 per cent., *ahu* 13·9 per cent. *Ahu* and *bao* are chiefly grown in Lower Assam; in Darrang, Sibsagar and Lakhimpur there is not much *ahu* and hardly any *bao*.

Hill districts.

28. In the hill districts, rice holds a less exclusive place among the crops cultivated. There are great differences in different parts of the province in the crops grown and the system of cultivation adopted; these differences are determined partly by the character of the country and partly by the degree of civilisation possessed by the tribe. Among the Khasis the system of agriculture is comparatively elaborate, and carefully adjusted to the productive powers of the soil. In the flatish valleys, with which the central plateau abounds, rice is grown in terraced and well irrigated fields, and such fields are found also on the northern margin of the district wherever the conformation of the surface admits of them. With this exception, however, the rest of their crops are grown on hill sides, the turf and scrub upon which are burned after being previously arranged in beds, and the seed sown in the ashes, which serve as manure. In this way are raised unirrigated rice, potatoes, various kinds of millet [the three principal being *soh-riu* or Job's-tears (*Coix lacrima*), *rai-tru* (*Eleusine coracana*), *rai-shang* (*Paspalum sanguinale*)] and a crop called *sohphlang* (*Flemingia vestita*), a leguminous plant with a red flower, which produces among its roots large numbers of tubers about the size of a pigeon's egg: these are eaten raw by the Khasis.

The crops just described are those of the central plateau; besides these, chiefly on the northern slopes of the hills towards Kamrup and Nowgong, cotton is grown in forest clearings, or *jhums*, where the soil is enriched by burning the felled trees and scrub. On the southern face of the hills, and on the slopes stretching into Sylhet, are produced the crops to which the wealth of the Khasis is so largely due,—oranges, betel-nuts, and pine-apples. The orange and betel-nut trees grow together, in carefully kept and regularly renewed groves, but great damage was done to this cultivation by the earthquake of 1897 and subsequent floods, many of the gardens being covered with sand and the trees destroyed. The pine-apple grows like a weed in this region, and is extraordinarily cheap and abundant. Besides these field crops, every Khasi

village on the plateau has its carefully hedged homestead lands, in which fine crops of potatoes, Indian-corn, vegetables, and pulses are raised, with occasional plots of sugarcane.

No others among the hill races can compete with the Khasis in the value of their staples, or the enlightened character of their agriculture. The Garos to the west, and the Mikirs, Kacharis, and Kukis to the east, cultivate entirely by *jhuming*, clearing the forests with axe and fire, and growing in the space thus secured, among the ashes of the trees and undergrowth, mixed crops of long-stemmed rice, chillies, cotton, millets, and gourds. Some of these tribes are less untidy than others in their mode of tillage, and devote a *jhum* to a single crop, such as rice, cotton, or millet: others mix their crops, which come to maturity at different times during the year. Land thus *jhumed* is nowhere occupied longer than three years, and often less, after which it requires from ten to twenty years to recover its fertility and to become reclothed with forest. All the cotton grown in the province is raised by the hill tribes in this manner, and is remarkable for its short staple and harsh woolly fibre; indeed it so much resembles wool that it has found a demand in Europe for mixing with wool for the manufacture of carpets.

One exception to this barbarous system of agriculture is found among the Angami Nagas. The powerful villages of this people, which lie about the skirts of the central mass of Japvo, are surrounded by admirably-constructed terraced rice-fields, not, as in the Khasi Hills, cut in the gentle slope of the valleys and embanked with earthen dykes, but built up with stone retaining-walls at different levels and irrigated by means of skilfully-engineered channels, which distribute the water over each step in the series. These remarkable works appear to be peculiar to the group of villages mentioned, their neighbours following the ordinary system of cultivation by *jhum*. They have doubtless been produced by the necessity of the position. Living in constant warfare with one another and with their neighbours and maintaining their supremacy by military force, these ruling villages were formerly compelled to keep their food-supply in the immediate vicinity of their habitations, and thus to make the utmost of the productive powers of the valley bottoms, instead of carrying their tillage over the wide hill-sides in a rotation of many years as is done by hillmen elsewhere. Another reason for their resort to irrigation appears to be that their hills are too densely peopled to admit of *jhum* cultivation, as, although the latter seems to yield a larger outturn for the years during which the cultivation is carried on, the land rapidly becomes exhausted, and, after two or three years' cultivation, requires a long rest before it recovers its fertility; a tribe cultivating on the *jhum* system thus requires a much greater area of land for its support than one resorting to irrigation.

Average outturn of crops.

29. For a series of years, numerous experiments have been made annually with a view to ascertaining the average outturn of the different crops grown in Assam. The statement below shows the normal outturn, in pounds, per acre, of the principal crops in the different plains districts, as estimated from the results of these experiments:—

Crop.	Cachar.	Sylhet.	Goalpara.	Kamrup.	Darrang.	Nowgong.	Sibsagar.	Lakhimpur.
1	2	3	4	5	6	7	8	9
WINTER RICE.								
Broadcast	856	894	...	658	675	1,020	665	638
Transplanted	3,183	869	1,521	990	1,298	1,148	882	1,281
Autumn rice (*aus* and *ahu*)	1,044	755	755	648	886	820	690	1,137
Spring rice (*boro*)	...	767	...	...	...	...	...	...
Mustard	502	600	1,020	470	525	480	808	527
Sugarcane (*gur*)	2,033	3,520	1,803	1,659	1,120	2,190	1,971	2,215
Linseed	...	644	...	...	...	...	...	...

The normal yield of winter rice (both broadcast and transplanted taken together) is about 9 cwts. of cleaned grain per acre and that of *aus* about 6 cwts. Mustard gives about 5 cwts. of seed and sugarcane about a ton of raw molasses per acre.

These figures represent only a rough general standard.

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Commercial staples—Tea.

30. The most important commercial staple of Assam is tea. The plant is indigenous to the province, being found wild in the forests south of the Dihing, in the Naga Hills to the south of Sibsagar, and in Manipur, North Cachar, and the Lushai Hills. The following paragraphs, extracted from a memorandum written by the late Sir John Edgar in 1873, give in a brief and convenient form a sketch of the growth and progress of the tea industry in this province from its commencement down to that year :—

There have been lively disputes as to the first discoverer of tea in Assam, and the date of its discovery. It is probable that a Mr. C. A. Bruce, who commanded a division of gunboats in Upper Assam during the first Burmese war, brought down from Upper Assam some plants and seed of the indigenous plant in 1826, and he actually received a medal from the English Society of Arts. But his claim to have been the first discoverer of tea was disputed by a Captain Charlton, who asserted that the existence of tea in Assam had been first established by himself in 1832. In 1834, a committee was appointed to enquire into and report on the possibility of introducing the cultivation of tea into India. In 1835, the first attempt was made by Government to establish an experimental plantation in Lakhimpur, but it failed and the plants were afterwards removed to Jaipur, in the Sibsagar district, and a garden established, which was sold to the Assam Company in 1840. This Company, which was formed about 1839, was the first, and is still very much the greatest, concern for the cultivation of tea in Bengal. It was not, however, very prosperous during its early years, and in 1846-47 its shares are said to have been almost unsaleable. Its prospects began to improve about 1852, and in 1859 it was reported officially to have a cultivated area of about 3,967 acres, with an estimated outturn of over 760,000 pounds of tea. Meantime, tea cultivation had been commenced in many other districts. In 1850 a garden was started by Colonel Hannay near Dibrugarh, and in 1853, when Mr. Mills of the Sudder Court visited Assam, he found three private gardens in Sibsagar and six in Lakhimpur. In 1854, the first gardens were started in Darrang and Kamrup. In 1855 indigenous tea was found in Cachar, and the first garden in the district was commenced in the cold season of that year. In the following year (1856) tea was discovered in Sylhet, but no attempt at cultivating it was made for some time after.

It may be said generally that the foundations of the present tea industry were laid between 1856 and 1859. In the latter year the labour difficulty began to be seriously felt in Assam and Cachar; but, although Colonel Jenkins, Commissioner of Assam, recorded a serious warning, no one else seemed able to foresee the formidable dangers into which the too rapid progress of the industry would bring it. Later still, in 1862-63, officials as well as planters seem to have indulged in visions of fabulous prosperity, which only deepened the gloom of the miserable time that was so soon to come on them. The Land Revenue Administration Report for that year contains extracts from reports from Assam, Cachar, Sylhet, and Darjeeling, written in the most hopeful spirit; indeed, the two former are written in an exalted tone that contrasts curiously with the usual sobriety of official reports. But even at the time of publication of these reports suspicions had begun to arise about the soundness of this condition of affairs, which was apparently so brilliant. An Act for the regulation of the transport of native labourers emigrating to Assam and Cachar, passed in 1863, was expected to remedy many hideous evils which were discovered to exist in the importation of labourers required to supplement the scanty local supply. But it soon came to light that the condition of these labourers on many gardens in both districts was most deplorable, while the mortality among them was appalling. The evil first fruits of the reckless way in which waste lands have been dealt with, in the belief that Government was fostering tea cultivation thereby, were being gathered in the shape of increasing hostility to Government and its officials, caused by difficulties about surveys, boundaries, title-deeds, and the like, which all had arisen out of the mistaken policy of giving vast tracts of land to any one choosing to ask for them, without enquiry and without precaution of any kind.

In 1865, an Act was passed for the regulation of the relations of employers and imported labourers after the arrival of the latter in the districts of Assam, Sylhet, and Cachar. Here I shall only say that, though at first at least it did little to improve the condition of the labourers, I am convinced that it had not the slightest connection with the temporary collapse of the tea industry which took place in the following year. The cause of the crash of 1866 was the utterly unsound foundation on which the fabric of the tea industry had been based, and not directly the action of Government, as at the time it was the fashion of even usually well-informed persons to assert. At the same time, we should never lose sight of the fact that the industry might never have got into the ruinous state of inflation that it was in previous to 1866, had it not been for the unwise attempts of Government to foster it at the outset by sacrificing the most necessary safeguards in dealing with land. The depression of the industry consequent on the collapse of so many concerns in 1866 was, of course, intensified by the ignorance of the general body of proprietors of tea shares who, as was remarked by me in a paper written in 1867, showed as much folly in their hurry to get out of tea as they had a few years before in their eagerness to undertake the speculation.

This depreciation of tea property continued during the years 1866, 1867, and 1868; but about 1869 things began to look brighter. It was seen that people who had worked steadily for years with a view to make gardens that would yield a profit had been rewarded, while much of the property of the collapsed companies had turned out well under careful management. In fact, it was again found out that tea would pay, and ever since it has been steadily progressing in popular estimation, and, as a general rule, in profit to those engaged in it.

There cannot be the slightest doubt that the industry is in an infinitely better and safer position now than it was ten years ago. The existing gardens are, as a general rule, well filled with plants, highly cultivated, and carefully managed. The amount of tea produced per acre, although falling far short of the sanguine expectation of the first days of tea planting, is satisfactory in all the more important districts, while the prices obtained this season show that the average quality must be very good. There is every reason to hope that the labour difficulty is disappearing in Cachar, and, in spite of the complaints from Assam, there are evident signs of improvement in that province.

Tea is now cultivated in all the plains districts of the province, though in Goalpara there are only 707 acres planted. The following figures give the total area under tea in each district, and the quantity (in lbs.) of manufactured tea according to the last returns, those of 1911 :—

	Total area under tea. Acres.	Quantity, in pounds, of manufactured tea (thousands).
Brahmaputra Valley—		
Goalpara	707	270
Kamrup	3,267	854
Darrang	43,352	24,285
Nowgong	12,364	6,019
Sibsagar	84,542	38,646
Lakhimpur	73,946	36,323
Total	218,178	106,397
Surma Valley—		
Cachar	59,518	31,457
Sylhet	76,580	41,199
Total	136,098	72,656
Grand total	354,276	179,053

When the industry was first undertaken, the land which was supposed to be best suited for the plant was hill or undulating ground, such as the spurs of the Khasi Hills in South Kamrup, and the *tilas* of Sylhet and Cachar. Now, however, it has been found in the Surma Valley that, with good drainage, the heaviest crops of tea can be raised from low-lying land, even such as formerly supported rice cultivation. In the Assam Valley, the most suitable soil is considered to be the old alluvium, or *bhángar*, such as is found in the south of the Sibsagar district and in the north of Darrang. This is a rich loam, capable, by reason of its undulating surface, of excellent drainage, and very heavy crops are obtained from such gardens. The average outturn per acre in 1911 was returned as 534 pounds for Sylhet and Cachar and 488 pounds for the Assam Valley.

31. *Prospects of the tea industry.*—Between 1893 and 1898 there was a great extension of tea cultivation, with the result that the industry began to suffer from the congestion that follows over-production. In 1891 there were 241,000 acres under the plant ; in 1901 there were 338,000 acres, and the output had risen from ninety million to one hundred and thirty-four million pounds. This increase in the supply was out of proportion to the expansion of the demand for Assam tea, rapid though this was, and prices, which in 1894 averaged 10 annas 5 pies per pound for the Brahmaputra Valley, and 8 annas 8 pies for the Surma Valley fell in 1900 to 5 annas 9 pies and 4 annas 6 pies respectively. The area under cultivation has now increased to 354,000 acres and the output to one hundred and seventy-nine million pounds. The average price per pound of tea realised on sales in London during the year 1912 was 9·51 pence for the Brahmaputra Valley and 8·15 pence for the Surma Valley. In the Calcutta sales the average prices were 7 annas 11 pies and 6 annas 11·4 pies. The present condition of the industry is decidedly prosperous.

Silk.

32. Assam has three kinds of domesticated silk worms found in the Brahmaputra Valley. These are the *pat* or mulberry worm (*bombyx textor*), the *muga* or *sum* feeding worm (*antheræa Assamœa*), whose cocoon like that of the *pat* can be reeled, and the castor oil worm or *eri*, (*attacus ricini*) yielding a silk which is never reeled, but spun by hand. The two species, *muga* and *eri*, present a hopeful field of enterprise. They are produced in considerable quantity already and are thoroughly adapted to the climatic conditions of Assam. The *eri* is the more promising of the two, both because it is cheaper and more abundant, and also because, being reared entirely indoors, its cultivation does not entail that troublesome necessity of watching by night and day which is imposed upon the *muga*-breeder during the period that his worms are on the trees.

The *eri* worm (*attacus ricini*) derives both its scientific and its vulgar name from its connection with the castor oil plant, called *eri* in Assamese. It feeds also on the *Kesera* (*heteropanax fragrans*), and there are several other trees such as the *Gulancha* (*Jatropha Curcas*), the *Gomari*, and the common *Bogri* or *Ber* tree (*Zizyphus Jujuba*) on which the worm can thrive in its later stages, if other food is not procurable in sufficient quantity. The *eri* worm is a multivoltine and is reared entirely indoors. It is reared to a greater or less extent in every district of the province. In the submontane country inhabited by the Kacharis and their cognates, along the north of the districts of Goalpara, Kamrup, Darrang and Lakhimpur, almost every house has its patch of castor oil plant, on which *eri* worms are fed. A good deal of *eri* is also produced in the district of Sibsagar. Throughout the whole range of the southern hills, from the Mikir country to the Garo Hills, *eri* thread is in great request for weaving those striped cloths in which the mountaineers delight.

The scientific name of the *muga* silk worm (*antheræa Assamæa*) denotes its particular connection with Assam. Its Assamese name is said to be derived from the amber colour of the silk, and is frequently used to denote silk in general, the genuine *muga* being distinguished by the title of *Sompatia muga* or silk yielded by the worm that feeds on the *sum* leaf. This is also a multivoltine worm and is commonly said to be only semi-domesticated, because it is reared upon trees in the open air. The *sum* tree furnishes its favourite food, but in Lower Assam it is exclusively bred on the *sualu*. *Muga* is less widely spread than *eri*. Sibsagar is the great *muga*-growing district of the Assam Valley. Next to that come the southern portion of the Mangaldai subdivision and the western part of Kamrup to the south of the Brahmaputra. There is also a considerable amount of *muga* rearing carried on in Lakhimpur, where the *sum* tree grows wild in great profusion, and the more closely peopled *mauzas* of Nowgong also contribute largely to the stock of *muga* in the province. The worm seems to be unknown in Sylhet and Cachar, while the hill districts do not produce trees on which it feeds.

The *pat* worm is a *bombyx*, akin to the silk worm of Europe. Under this name are included two distinct species—the univoltine *bombyx textor*, called the large worm (*bar polu*) and the multivoltine small worm (*saru polu*) of which the scientific name is *bombyx cræsi*. Both kinds are reared indoors on the leaves of the mulberry. The smaller species of *pat* silk worm gives a white silk, which is reeled into a coarser and less valuable thread than that of the larger. The *pat* silk is a much rarer and more valuable article than either *eri* or *muga*. Nothing like a market for *pat* thread or cloth can be said to exist. The breeding of worms is restricted by custom to the Jugi caste, and the industry is hardly known outside the district of Sibsagar, the ancient centre of Ahom rule.

Cotton. 33. Cotton is chiefly grown along the slopes of the central range of hills. The area under cotton is 37,620 acres, of which the Garo Hills contain nearly half. There are seven kinds of cotton grown in the province, *viz.*, *kil* in the Garo Hills, a large and a small variety, *bar* and *saru kapak*, in the Mikir Hills and the adjacent plains country in Nowgong and Golaghat; *khunsa* and *khunma* in the North Cachar Hills, *khonkho shickoa* in the Naga Hills and *lassing anguangba* in Manipur. These seven kinds of cotton are not all distinct varieties, but the names by which the crop is known differ from district to district, and peculiarities of soil, climate and method of cultivation have produced divergences from the original type. Roughly speaking, there are two well-marked varieties, namely, the large-bolled high growing cotton and the small round-bolled species. The former is grown in Nowgong on level ground, has a smaller number of seeds than the other variety, can be ginned more easily and plucked twice a year instead of once, and bears for three seasons. The *kil* of the Garo Hills is very nearly the same, except that the crop is annual, is grown on the hill sides and is not confined to level ground, and can be plucked only once a year. The pods of the *kil* are sometimes as much as eight inches in length and the quality of the lint is harsh and only fit for mixing with wool. The small round-bolled variety is sown annually and can be plucked only once a year. The Jaintia Hills cotton of this variety is said to be the best cotton in the province. Cotton is most generally grown on forest clearings known as *jhums*, except in the few places where it is grown in the plains. The plucking of cotton generally begins about November and is usually over in January. The cotton is sold at Tura and in markets on the borders of the Goalpara and Mymensingh districts, whence it is carried for shipment, either in large flats or in country boats, to Calcutta and Narayanganj. Towards the close of the cold weather the cotton grown in the Mikir Hills is also seen going down the Kopili and Kallang rivers in country boats. The total exports of cotton in 1911-1912 were 81 thousand maunds.

Rubber.

34. One of the most valuable products of Assam is India Rubber which is obtained almost exclusively from *Ficus elastica*. This species occurs in Kamrup, Darrang, Lakhimpur and the Khasi and Jaintia Hills, the outturn and revenue derived therefrom being greater in the first two districts, where there are plantations. In Lakhimpur a large number of trees died owing to heavy root tapping in the past and there are now only a few trees surviving. The areas containing this species were worked under the mahal system, and, in order that the few existing trees might not be exterminated owing to the reckless treatment they received at the hands of the tappers in the way of root tapping, it was decided in 1907 to close the mahal for the next ten years in order to give the surviving trees a chance of recovering from the injuries received. The quantity of rubber obtained from the Khasi and Jaintia Hills is insignificant.

The duty on rubber is now levied at Rs. 17 per maund, and this has been raised to Rs. 50 per maund in the case of root rubber, which is easily distinguished from rubber obtained from the other parts of the tree. The practice of tapping the roots of rubber trees is destructive and often kills the trees, and in order to put a stop to this practice, this prohibitive duty was imposed in 1906.

The areas containing *Ficus elastica* are worked under the mahal system in this province. The following statement compares the figures for home and foreign rubber during the last five years :—

	Home. Mds.	Foreign. Mds.
1907-1908	231	798
1908-1909	155	511
1909-1910	423	1,426
1910-1911	232	1,623
1911-1912	103	779

From the above it appears that the home forests yield very little rubber, but passes to cross the Frontier for the purpose of procuring foreign rubber are issued to the mahaldars and therein lies the principal value of the mahals.

Besides the sources mentioned above there are, in the Kamrup and Darrang divisions, Government plantations of *Ficus elastica* which yield a considerable outturn of rubber every year. These plantations were started by the Forest Department in the year 1873 in order to maintain the supply of, and to meet the rising demand for, rubber. A full description as to the methods of planting and tapping followed in these two plantations, the age at which the tapping of the trees commenced, and other particulars will be found in Forest Bulletin No. 4 of of 1906—*Ficus Elastica*—by Mr. E. M. Coventry, Deputy Conservator of Forests. The plantations are worked departmentally, and the rubber obtained is either sold locally to a firm in Calcutta or sent to London for sale through the agency of Calcutta firms. The following figures give the results of working during the last five years :—

Year.	Outturn. lbs.	Revenue. Rs.
1907-1908	12,429	28,480
1908-1909	10,640	28,520
1909-1910	16,615	49,758
1910-1911	12,550	35,513
1911-1912	11,104	26,425

An attempt has recently been made to increase the number of aerial roots of rubber trees in these two plantations. It has been noticed in some instances that the severity of tapping in former times has led to loss of vigour, and the roots sent out are not very strong. It is in heavily tapped areas that these roots are most wanted. The experiment is being continued.

The quantity of rubber exported during the last five years by Government agency has been as follows :—

	lbs.
1907-1908	12,327
1908-1909	10,133
1909-1910	16,206
1910-1911	11,888
1911-1912	11,752

The figures of export for the same years by other agencies are as follows :—

	Mds.
1907-1908	1,029
1908-1909	666
1909-1910	1,849
1910-1911	1,855
1911-1912	882

PHYSICAL AND POLITICAL GEOGRAPHY.

Lac.

35. Lac is produced chiefly in Lower Assam, namely, in Goalpara, Kamrup and parts of the Nowgong district. The insect is generally propagated on the *arhar* or *tur* (*cajanus indicus*) and on several species of *ficus*, specially the *pakari* (*ficus cordifolia*), *ahat* (*ficus religiosa*) and *bor* (*ficus aliissima*). The cultivators inoculate the trees by fixing on them branches of stick lac wrapped with grass. In the case of *arhar* or *miri mah*, small brood-lac sticks, each six inches to eight inches long, are tied to the stem of each plant with plantain bast. When the young insects cease to emerge, the sticks are removed and the resin is scraped with knives. With the exception of a few maunds of manufactured lac exported now and again, the entire quantity of lac exported from Assam is in the shape of stick or crude lac. The commercial product known as lac dye is nowhere prepared. The dye can, however, be easily extracted from crude or boiled lac and is in everyday use in Assam for dyeing cloths and yarns. The art of manufacturing lac wares seems to be dying out. Sibsagar and Sylhet are the only two districts where the art is still practised. Wooden toys are the only wares ordinarily ornamented with lac, and Sylhet town was once noted for them. The total export of lac in 1911-1912 was 34,469 maunds, of which 32,814 maunds were from the Lower Assam.

Mustard.

36. Mustard is one of the important crops in the west of the Brahmaputra Valley, and is largely grown in the inundated parts of Kamrup and Nowgong. The area under the crop is 281,823 acres, and it covers the largest area after rice and tea. Within recent years a number of steam oil mills have been established within the province, there being a large demand for the cake as manure in tea gardens. But it is instructive to note that in 1911-1912 Assam imported 112,774 maunds of mustard oil and 137,267 maunds of oil cake, though it exported 454,145 maunds of seed.

Jute.

37. Jute is cultivated on a small scale in all the plains districts of the province, as well as in the plains portion of the Garo Hills district, to supply fibre for making ropes and twine for domestic use. The only districts in which it is produced on a considerable scale for export are Sylhet, Goalpara and the Garo Hills, which adjoin the great jute-growing areas of Bengal. In Sylhet and Goalpara the crop is almost entirely confined to the permanently-settled tracts. Elsewhere in the plains jute is grown only in small patches for home consumption. The area sown with jute is estimated at about 100,000 acres. Jute can be grown over a great range of soils, but silted lands are considered especially suitable by the cultivator, as they will usually produce heavy crops with little or no manure. The time of sowing jute varies in different districts, from the middle of February to the end of May. The seed is sown broadcast at the rate of from six to nine pounds per acre. The sowing is carried out crosswise, first from north to south and then from east to west, thus ensuring a fairly even distribution of the seed. In many districts it is the custom to grow jute and *aman* paddy in rotation. The jute is cut between the beginning of July and the middle of August, and the land is immediately ploughed and prepared for the transplantation of paddy. The season for cutting jute extends from about the beginning of July to the middle of September. The export trade in jute in 1911-1912 was only 6½ lakhs of maunds, of which 5½ lakhs were from Lower Assam including the Garo Hills. The trade is still in its infancy, its tendency being to extend eastwards from the direction of the Bengal Frontier.

Potatoes.

38. As a staple crop, potatoes are grown at present only in the Khasi Hills. They are also grown to a small extent in other districts, and there is reason to believe that they could be grown on a much more extensive scale in most districts of the province. *Char* lands, where the soil is a light loam, are eminently suitable for their cultivation. Amongst the Khasis two crops are produced yearly, the first being sown in February and March and harvested in July, and the second put down in August and taken up in November and December. A fair yield under average conditions would be from 90 to 120 maunds per acre; but with liberal manuring and irrigation it would be possible to increase this to 200 or 250 maunds per acre or even more. Large quantities of potatoes are carried down every year to Gauhati for the supply of the Assam Valley, but the main channel of export to Bengal is *viâ* Cherrapunji and Sylhet, whence the potatoes are conveyed by boat and steamer. The export this year was 83,702 maunds.

Oranges.

39. The chief centre of orange cultivation is in the Khasi Hills, in a narrow strip of country along the foot of the hills bordering on the Sylhet district. The plantations commence from the plains, and rise to an elevation of about 1,500 feet above the sea-level. Above these low hills and not far away is the table land of Cherrapunji, which enjoys the unenviable distinction of having the highest rainfall in the world. The gardens extend for some distance into the interior along the deep

valleys which cut up the southern face of the Khasi Hills. Orange trees are common enough in other parts of the district, and are found at Shillong at an elevation of 5,000 feet. The total extent of the country in the Khasi Hills, in which oranges can be profitably grown, may cover an area of about one hundred square miles. It is upon this small area that the greater part of Bengal and Assam depends for its supply of oranges. The orange tree is said to do best on limestone soil. The bulk of the crop is, however, grown on soils derived from siliceous rocks containing very little lime. The Khasias know only one variety of orange called "U sohniamtra." The fruits of some trees have a thick rind. In others, the skin is thinner, and the pulp more succulent. Orange trees are invariably raised from seed in the Khasi Hills. The seed fruits are taken from trees selected for their good quality. They are plucked when fully ripe. After being pressed out of the pulp, the seeds are tested by immersion in water. Those which sink are taken and those which float are thrown away as unsound. The selected seeds are thoroughly washed and dried in the sun for two or three days. December and January are the usual months for sowing the seed. The seedlings are planted out about nine inches apart. Among the insect pests to which the orange tree is liable, the borer is the most destructive. Within recent years a serious blight has appeared among the orange trees on the southern slopes of the Hills. The orange season commences in November, and closes in March. The export trade in the Khasi orange is in the hands of traders who are mostly men of the Sylhet district. The usual wholesale price of oranges varies from Rs. 10 to Rs. 20 per "hundred," equivalent to about 2,300 fruits.

40. Assam is, physically and climatically, essentially a forest country, and as might be expected from its geographical position in relation to adjacent zones of vegetation, its forests are exceedingly rich botanically. Thus the western part of the Assam Valley merges botanically into the flora of the Upper Gangetic plain and many of its component species penetrate far into Assam. On the other hand, the Indo-Chinese-Malayan types characteristic of the Upper Brahmaputra and of the Surma Valleys also extend westwards into the former, so that the forest flora of the province, as a whole, offers a highly complex study to the forester and botanist. The number of forest species is very large, in Upper Assam exceeding three thousand, less than a third of which have vernacular names. Forests.

In the plains portion of the Surma Valley the forests have disappeared under pressure of demand for land both for ordinary and tea cultivation. The reserved forests are therefore located on the surrounding hills and on the low spurs projecting from the main ranges. In the Assam Valley, conditions have been somewhat different, there has been comparatively little demand for land for ordinary cultivation but a relatively large demand for tea cultivation, the forests therefore occur in localities where the spread of tea, for various reasons, had not been considered advantageous or feasible. The distribution of forest growth is, therefore, not the most advantageous from the economic standpoint, but the area is considerable and with the help of the forests situated on the adjacent hills, the Brahmaputra Valley is well provided for as regards its timber supply. There are two main classes of forests in Assam, *viz.*, reserved forests, which have been legally constituted as permanent sources of forest produce, or for other economic reasons, and the unclassed State forests, which include all unoccupied Government waste lands. The position of the former is secure under the protection of the Assam Forest Regulation. In the latter, certain restrictions are imposed by rules under the Regulation in regard to the utilization of forest produce. Briefly, the difference may be said to be as follows:—In reserved forests all acts are prohibited unless specifically permitted, while in the unclassed State forests all acts are permitted unless specifically prohibited.

The unclassed State forests occupy a very large area (18,403 square miles), though a comparatively small proportion is wooded, the extensive savannah lands bordering the Brahmaputra fall within this class of forest. Cultivation is allowed to extend into the waste lands, but steps are now being taken to examine them with a view to the reservation of suitable tracts either as permanent reserves for the production of timber, or as village forests for the provision of the ordinary petty requirements of the people, and as grazing grounds. Pending the result of this investigation, certain portions are excluded from settlement without reference to the Forest Department. A closer association has thus been established between the Agricultural and Forest Departments which is capable of still further development in the interests of the agricultural community.

The forests on the hills are generally of little value chiefly on account of the destructive system of *jhum* cultivation practised by the inhabitants. The most valuable forests are located along the foot of the main ranges in the less accessible

parts, but these often include large stretches of bamboo growth and grass covered swampy lands which, until recently, had little economic value. The possibility of manufacturing paper pulp from these has, however, recently given them a special interest.

The following compares the distribution of the reserved forests on the 30th June 1901 and 1911, respectively :—

	Reserved Forests.	
	1901. Sq. miles.	1911. Sq. miles.
Cachar	772	949
Sylhet	103	94
Goalpara	721	884
Kamrup	148	261
Darrang	321	336
Nowgong	143	198
Sibsagar	876	1,043
Lakhimpur	340	333
Khasi and Jaintia Hills	51	114
Garo Hills	134	133
Total ...	3,609	4,345

There has thus been a net increase of 736 square miles in the reserved area. The reserves occupy 8·2 per cent. of the total area of the province (excluding Manipur).

The most valuable are the *sâl* (*Shorea robusta*) bearing forests of Goalpara, Kamrup, Garo Hills, Nowgong and Darrang. The *sâl* is a gregarious tree and its timber is in extensive demand for railway sleepers, ordinary construction and boat building. It reaches its best development in the Garo Hills, but the Garos have been granted vested interests in the land for *jhum* cultivation which preclude the extension of the small reserved area in that district. With the exception of some inaccessible forests in the Garo Hills, practically the whole *sâl* area in reserved forests is under working plans. The sylviculture of the *sâl* forests presents some difficulties because of the inroads of an evergreen undergrowth, which arrests reproduction, consequent upon successful fire protection. The subject is receiving attention, but observations extending over a lengthy period can alone solve the problem.

Sissu. Cutch.

There are valuable *sissu* (*Dalbergia sissu*) forests in Goalpara, in which there is at present a very large proportion of dead timber, believed to be due to an alteration of level of the sub-soil moisture. Efforts are being made to realize the value of this dead material. Cutch (*Acacia catechu*) occurs along the open river beds in the submontane tract from the western limits of the province to Charduar in Darrang. The manufacture of cutch extract presents difficulties because of the occurernce of the main principle, catechin, in an amorphous state in the Assam cutch timbers. Cutch boiling has, therefore, not been developed as in other cutch-growing countries.

The most important industry dependent on timber is the manufacture of tea chests. There are seven mills in Upper Assam and two in the Surma Valley engaged in this trade. In Upper Assam the principal timber used is *simul* (*Bombax malabaricum*), while *tula* (*Tetrameles nudiflora*) is preferred in the Surma Valley. The total outturn of timber in the rough utilized by these mills probably exceeds one and a half million cubic feet per annum. The more accessible forests have been exhausted and it is therefore necessary to go further afield for present supplies. The cost of extraction has risen and the locally manufactured box has difficulty in competing with the imported article. The Administration has therefore, as a temporary measure, remitted the royalty on tea-box timbers.

The evergreen forests which cover the larger part of the wooded area in the Brahmaputra Valley have hitherto only supplied a spasmodic and uncertain demand. With the exception of dug-outs, there has been practically no export beyond the limits of the province. A company has, however, taken a lease of the Dehing and Jaipur forests in the Lakhimpur district and with the help of modern appliances expects to place Assam timber on distant markets in large quantities. With the exception of *nahor* (*Mesua ferrea*) and *hollong* (*Dipterocarpus pilosus*) which are gregarious, the saleable timbers in these evergreen forests occur as a sprinkling in a matrix of useless kinds, so that their utilization is not easy, moreover the country is difficult and unhealthy. The timber trade in the Surma Valley is highly developed and all the accessible forests have been worked out. The distant forests of Manipur, Lushai Hills and Hill Tippera now supply the bulk of the demand, but in these also overcutting is likely to result. The Manipur Durbar has taken steps to introduce conservative

management and some restrictions have already been imposed in the Lushai Hills. Recent political developments have rendered possible the introduction of conservative management in the North-Eastern Frontier Tract where the bulk of the *simul* supply for tea-box manufacture has been obtained. There are also in this region forests of exceptional value, particularly in the Khampti-Singpho country, and the local officers are co-operating with the Forest Department for their preservation.

There has been a steady development of the revenues from the State forests which is exhibited in the following figures :—

Year.	Receipts. Rs.	Expenditure. Rs.	Surplus. Rs.
1901-1902	5,12,963	3,29,113	1,83,850
1911-1912	11,17,569	8,32,158	2,85,411

The increase under receipts has been general from all sources, but the principal feature has been the development of the timber trade in *sál* timber of the Goalpara forests, the revenue of this division having risen from Rs. 96,279 in 1901-1902 to Rs. 2,57,905 in 1911-1912. The construction of the Gauhati extension of the Eastern Bengal State Railway not only established a demand for sleepers, but has placed new markets, hitherto untouched, within easy access. Perhaps the most noteworthy incident of the decade ending 1911-1912 has been the increased values of the sales of minor produce which have risen from Rs. 92,872 in 1901-1902 to Rs. 3,72,414 in 1911-1912. The latter represents a third of the gross revenue. The proceeds from elephant mahals and royalties on captures accounted for Rs. 69,822 of this increase, this revenue only having been credited to forests since 1904-1905. A keen demand has arisen for cane, the revenue from which exceeds half a lakh of rupees, having increased five-fold during the decennial period. Expenditure has risen in proportion to the revenues. Consequent upon territorial changes, the forests of Assam and Eastern Bengal came under the Conservator of Forests, Assam, but the charge had to be subdivided, a Second Conservator being sanctioned in 1908. A general revision of establishments took place at the same time involving increased expenditure. In order to open up the forests so as to facilitate working and extraction, liberal expenditure has been made on road work, the amount spent rising from Rs. 12,232 in 1901-1902 to Rs. 43,478 in 1911-1912, the corresponding figures for buildings being Rs. 10,456 and Rs. 50,461, respectively. The forest revenues have, therefore, responded to this liberality of treatment. A tramway has been laid in Goalpara which reached a length of 20 miles at the end of 1911-1912. The total capital outlay at that time amounted to Rs. 1,03,069. The estimated profit on the tramway, compared with the estimated cost of ordinary transport, worked out at 6 per cent. of the capital outlay, but its chief justification lies in the fact that no other means of transport are available and without the tramway the forests could not be exploited.

Elephants.

41. Elephants form an important item of revenue and occur throughout the extensive forests of the Brahmaputra Valley. In the Surma Valley their numbers have been reduced almost to vanishing point. The Khedda Department which held some of the best hunting grounds in the province, was transferred to Burma in 1902-1903 and the whole of the province was then worked on the mahal system. Each district is subdivided into a number of mahals which are sold, usually at auction, for a period of two years, followed by a similar period of rest. Royalty at the rate of Rs. 100 per animal captured is also paid to Government. In 1911-1912 no fewer than 359 elephants were caught in the Assam forests, and considering the slow rate of breeding there can be no doubt that the herds cannot continue to be depleted at this rate without risk of extinction. The subject is engaging the attention of the Administration. Elephants are exported to India and Burma, and the demand has been so great as practically to double their value during the past ten years.

Mines and minerals.

42. In the section dealing with the geology of the province some account has been given of the most important minerals found in Assam, *viz.*, coal and limestone. Iron occurs in the metamorphic and sub-metamorphic rocks of the Shillong plateau in the Khasi Hills and is still worked, but to a very small extent. It is derived from the minute crystals of titaniferous iron ore, which are found in the decomposed granite on the surface of the central dyke of the rock, near the highest portion of the plateau. The iron is of excellent quality, and the industry was formerly one of considerable importance, the metal being exported to the Surma and Brahmaputra Valleys. Large quantities of iron ore used to be extracted from the coal measures in Upper Assam under native rule, and iron abounds in the Mikir Hills. Petroleum springs exist in the Makum fields in Lakhimpur. Gold was once washed in the rivers of Upper Assam, but the industry is not now found to be worth pursuing. Platinum has been found in the sands of the Dihing river and lead and silver have been met with in the Hkamti Hills. Corundum occurs in the Khasi Hills, and kaolin in the Garó and Jaintia Hills and also near the Brahmakund at the eastern end of the Assam Valley. Salt springs are found in the Upper Assam coal area, and in Cachar and Manipur.

Coal. Upper Assam.

43. The mineral of the first economic importance to Assam is the coal which is found on the north-western face of the Eastern Naga Hills. Situated as these fields are near the upper terminus of steam navigation on the Brahmaputra, it had long been recognised that their successful exploitation would effect a revolution in the carrying trade by steamers on that river, which formerly depended on Raniganj for their fuel supply. The existence of coal here has been known since 1825. The question of opening out the fields was reported on by a committee which assembled at Calcutta in 1840 and 1845. The localities were summarily examined by Mr. Medlicott of the Geological Survey in 1865, and in the seasons 1874-75 and 1875-76 Mr. Mallet of the same Survey made a careful inspection of all the coal outcrops from the Tirap to the Desoi river. His report, which contains a detailed description of the several fields, will be found in Volume XII of the Memoirs of the Geological Survey. The coal measures extend along a distance of about 110 miles, but are exposed only where the river valleys have cut into them. Five coal-fields have been described and named by Mr. Mallet, *viz.*, the Makum, Jaipur, Nazira (Dikhu and Safrai), Jhanzi, and Desoi fields. Besides these, in the further extension of the Naga Hills up the Dihing Valley to the frontiers of Burma, there are other known, but not regularly explored, localities where coal occurs. The most important is the Makum field on the Dihing river, where the seams reach an immense thickness. Several desultory attempts had, from time to time, been made to work the coal there, but, owing to difficulties of labour and transport due to the uninhabited character of the country, and the difficult navigation of the Dihing river, no large quantity had, at any time, been brought out until 1881, when the mine was leased to the Assam Railways and Trading Company, and a railway was constructed from the Brahmaputra at Dibrugarh to the coal measures on the Dihing. Since that time the mines have been vigorously worked, and the output of coal has risen steadily. The coal is of good quality and is exclusively used by the steamers navigating the Brahmaputra and by a large number of tea gardens in Assam. Considerable quantities are also exported to Bengal. Provincial figures showing the output of coal are given in the margin.

	Tons.
1908	275,224
1909	305,563
1910	297,094
1911	294,893

A portion of the Dikhu or Nazira field, situated a short distance within the hills south of Sibsagar, whence that river issues, is held on lease by the Assam Company, but, except for the needs of the lessees, has not yet been worked to any extent. A Company, designated the Nazira Coal Company, has, however, lately been formed to work the deposits on the east of Dikhu river. The other outcrops, the Jaipur field in the Dihing, which is very favourably situated for working, and the Jhanzi and Desoi fields, which are less accessible from the plains, have not yet been exploited.

Garo and Khasi Hills.

44. Coal has also been found in the Garo and Khasi and Jaintia Hills. As already noticed, this coal is of two very distinct kinds, the older or cretaceous coal and the newer or tertiary in the nummulitic limestone. The largest deposits are those of the former, *viz.*, the cretaceous coal found in the neighbourhood of and to the east of the Darrangiri field (which has been described in the "Records of the Geological Survey," Volume XV, page 175) and are situated north of the main axis of the Garo Hills, on either side of the gorge through which the Someswari river makes its way to the plains. This field was originally estimated to contain seventy-six million tons of good workable coal, but recent discoveries have proved that there must be at least some three hundred million tons. The coal is reported to be a good hard coal of a high calorific value. A syndicate has taken a prospecting license of this area, and the construction of a railway to Bagmara is in contemplation. It is intended to convey the coal from Darrangiri to Bagmara by a ropeway.

There are two other beds of cretaceous coal known in the Khasi Hills, namely, the Maobehlarkhar field near Maoflang and the Langrin field on the Jadukata river. The former has been worked for several years by the native villagers in a primitive way for the local supply of the Shillong station, which is some twenty miles away. The coal is of excellent quality, similar to that found in the Garo Hills, but the seam extends over a small area only. The Langrin seam extends over an area of some thirty square miles, and being at the foot of the hills is in a very accessible situation. The seam is, however, only some three feet thick. Coal is also found at Longlai and on the Nambor river in the Mikir Hills, but it is poor in quality and would hardly pay to work.

The following coal-fields have been discovered in the south Khasi Hills in the lower tertiary formation lying in the nummulitic limestone :—Cherrapunji, Lakadong, Thangjinath, Lynkerdem, Maolong, and Mustoh. The Maolong field has lately been taken on lease by a Limited Company. It is estimated to contain some fifteen million tons of good workable coal.

The Cherrapunji coal-field has been estimated by Mr. LaTouche (*vide* Records of the Geological Survey, India, Volume XXII, Part 3) to contain 1,300,000 tons. This is the same coal as that found in the Maolong field, but owing to its high elevation (4,560 feet), it is difficult to arrange means of transport from this field. The construction of a ropeway is, however, in contemplation, and the option of taking out a mining lease for this field within the next three years has been granted.

The Lakadong field is situated some way to the east, and has also been surveyed and reported on by Mr. LaTouche (*vide* Records of the Geological Survey, Volume XXIII, Part I, page 14). It is said to contain some 1,164,000 tons, but a considerable outlay would be required in this field also to bring the coal to any large market, the field being 7 miles from the foot of the hills and at an elevation of 2,200 feet above the plains.

Coal-beds have recently been discovered in the vicinity of the Shillong-Gauhati road, eight miles north of Shillong. This coal-field has been surveyed and reported on by Mr. P. N. Bose (*vide* Records of the Geological Survey, India, Volume XXXI, Part I, 1904). At Jarain is a small bed from which the town of Jowai is supplied.

45 Iron exists in Assam, as in most other parts of India, in great quantity and in various forms; but the competition of English iron, with the exhaustion of the supplies of fuel which supported the native furnaces, has almost extinguished the indigenous industry in the Khasi Hills. In Sibsagar, where in the days of the Assam Rajas iron-smelting was extensively practised, and the great iron cannon for which Assam was once famous were forged, the art has completely ceased to exist. The Khasi Hills iron, which is still made in small quantities and exported to the submontane bazars, is derived from the minute crystals of titaniferous iron ore, which are found in the decomposed granite on the surface of the central dyke of that rock, near the highest portion of the plateau. The decomposed granite is rolled down into a stream, where it is washed to separate the iron-sand, which is collected in wooden troughs, dried, and reduced with charcoal in small furnaces. The quality of the iron is excellent, and it is still sought after to some extent for manufacture into hoes and *daos*; but it cannot be doubted that the industry must soon die out. Its great extension in former times is evidenced by the remains of smelting furnaces which cover the surface for many miles, from the brow of the hill below Cherrapunji as far north as Mylliem and beyond. The slag from these workings supplied a considerable portion of the metal for the cart-road between Cherra and Shillong. Iron.

In Upper Assam, clay ironstone occurs in nodules of various sizes, and sometimes in thin beds, interstratified with shales and sandstones, in the coal measures of the Naga Hills; but it is believed that the ore is not in sufficient abundance to afford a supply for a blast furnace on the English principle. The scarcity of limestone required to form a flux would, even if the ore were in greater quantity, probably form an insuperable obstacle to operations on a large scale. Iron ore is also of widespread occurrence in the South Mikir Hills, but no attempt has been made to work the deposits. The company who have the concession of the Makum coal-field have also the monopoly of the iron of that region, but have hitherto made no attempt to work it. The iron ore formerly smelted in Sibsagar was derived both from the clay ironstones in the coal measures (chiefly those of the Nazira field), and from the impure limonite which occurs in great abundance in the Tipam rocks south of the Dhodar Ali. The former was the source most exploited.

46. Pyritous shales are also found associated with the coal measures of Upper Assam, and it may perhaps hereafter be found profitable to use them for the manufacture of alum and copperas. Alum.

47. Petroleum is found in the neighbourhood of the coal of Upper Assam. It is a heavy oil, containing a comparatively small proportion of the light illuminating hydro carbons; but has excellent lubricating qualities, and yields a large proportion of paraffin wax. The earliest experiments in working it were made at Nahor Pung, in the Jaipur field (where they were a failure) and near Makum, where a considerable amount of oil was extracted in 1868. A concession for working petroleum in the Makum field was granted to the Assam Railways and Trading Company in 1882-83, and two similar concessions in the same neighbourhood were granted in 1892—one to the company already mentioned, and the other to a syndicate. The concession in the Makum field expired in 1901, and a lease of an area of four square miles for twenty-five years was then issued to the concessionaires. The three oil-bearing tracts were subsequently acquired by a separate company formed for the purpose, who have constructed large refineries at Digboi, and have started a considerable business in lubricating and illuminating oils, candles, and wax. The output of petroleum amounted to 3,565,163 gallons in 1911. Petroleu

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Besides the petroleum of Upper Assam, this mineral is also found in the Khasi and Jaintia Hills and in Cachar. It occurs on the banks of the Barak, at Masimpur, where the Tilain range crosses the river, and near Badarpur, where the Saraspur hills run up to the stream from the south. It has besides been detected at various places along these ridges, which are part of the prolongation into the Surma Valley of the Arrakan meridional ranges. It has also been found north of the Barak, on the Larang, a small stream issuing from the Barail range north of Kalain, and joining the Surma near Lebharpota. The natural oil springs, which have long been known to exist in the Khasimara Valley, on the southern slope of the Khasi and Jaintia Hills, will possibly prove to be of great importance, recent analysis showing that this oil is free from wax and of high lubricating power. Two prospecting licenses for oil have been granted in Cachar.

Salt.

48. Salt-springs are found in conjunction with petroleum in the Upper Assam coal area, at Borhat, Jaipur, and other places. In former times their brine was largely used for conversion into merchantable salt, and to this day a small quantity of salt so made (the brine being boiled down in joints of bamboo) is imported by the Nagas into Jaipur. Salt-springs exist in Cachar, both in the southern ranges (Saraspur and Bhuban hills) and in the Barail. Those in the Hailakandi Valley, in mauzas Bansbari and Chandipur, are the only ones which are now worked, though formerly the industry was more extensive. They are however no longer leased. The brine is not boiled down, the water being disposed of in *gharas* to the people of the neighbouring villages. Several salt-springs are worked in Manipur, where they are highly valued.

Lime.

49. Next in importance to coal in this province are the vast stores of limestone which exist on the southern face of the Khasi and Jaintia Hills, where the downward bending strata of the nummulitic rocks have been worked as a lime-supply from a period long anterior to British rule. "Sylhet lime" was a monopoly of the Mogul Governors of Bengal, and, as such, figures in the early *sanads*, *farmans*, and treaties by which the East India Company acquired command over that province. The limestone is found from the exit of the Someswari river in the Garo Hills to that of the Hari river in Jaintia; but it can only be economically worked where special facilities exist for its transport from the quarries to the kiln. The most important of these quarries are those situated on the Jadukata and Punatith rivers, which debouch near Laur in Sylhet; the Dwara quarries to the east of these; the Cheyla or Shella quarries, on the Bogapani; the Maolong, Byrang, Sohbar, and Borpunji quarries, which lie immediately under Cherrapunji; and the Utma quarries, a little to the east on an affluent of the Piyain. Those beyond have rarely been worked, the advantages possessed by the quarries nearer the great limestone marts of Chhatak and Sunamganj enabling the latter to undersell them. Altogether there are thirty-four limestone tracts which are separately treated as quarries in the Khasi and Jaintia Hills, one in Sylhet and one in the Garo Hills. The Government is the sole proprietor of all the quarries in the Jaintia and Garo Hills and Sylhet, as well as of four in the Khasi Hills. The remainder (with one exception) are the joint property of the Khasi rulers or communities and the British Government, the latter administering the estates and taking half the profits.

Owing to competition from other sources of supply, the Sylhet lime trade has declined from its former importance, and in 1901, only four quarries (Shella, Sohbar, Byrang, and Maolong) were worked under the permit system, while three (Borpunji, Langrin, and Nongstoin) were leased. The Maostoh quarry, over which Government has no control, was also worked by its proprietors, the remaining twenty-seven quarries being closed. The exports of lime and stone during the last three years have averaged annually over twenty-three lakhs of maunds, while the revenue received by Government varies from three to six thousand rupees per annum.

The stone is quarried chiefly during the dry months, and is either carried to Companyganj, whence it is taken by boat to Chhatak, or rolled down to the river banks and conveyed in small boats when the hill streams are in flood during the rains, over the rapids, which occur before the rivers issue on the plains. Below the rapids it is generally reloaded on larger boats, and carried down to the Surma river, on the banks of which it is burnt into lime during the cold weather. The kilns are of a primitive description, being mere excavations in the river bank, faced and roofed with clay. The fuel used consists of the reeds and grasses of the swampy tract which stretches along the foot of the hills. This industry gives employment to a great number of people, the quarriers being generally Khasis, and the boatmen and lime-burners Bengalis of Sylhet. A certain quantity of limestone is also exported to Calcutta to be burnt there.

Limestone is also extracted in small quantities from the Doigrang, a tributary of the Dhansiri, a few miles south of Golaghat. A description of this formation, which has not yet been systematically worked, will be found in the "Records of the Geological Survey," Volume XVII, page 31. There are also considerable deposits of good limestone on the Deopani, Hariajan, and Jamuna rivers in the Mikir Hills, but they are too inaccessible to repay the cost of extraction.

Gold.

50. The rivers of Assam which have yielded gold are those of the Darrang and Lakhimpur districts north of the Brahmaputra, the Brahmaputra itself in its upper course, the Noa and Buri Dihings, and a small stream called the Jaglo, which rises in the Tipam Hills and falls into the Buri Dihing. In the Sibsagar district the Dhansiri, Desoi, and Jhanzi rivers are said to have been auriferous. Of these streams, the Bhareli in Darrang and the Dikrang and Subansiri in Lakhimpur appear to have formerly given the largest quantities. The gold in these rivers is probably doubly derivative, being washed out of the tertiary sandstones of the sub-Himalayan formations, themselves the result of the denudation of the crystalline rocks in the interior of the chain. The industry was maintained in the time of the Assam Rajas by the peculiar system of taxation which then prevailed, each class of the population being bound to contribute in kind or labour to the State. The *sonwals*, or gold washers, were taxed at four annas' weight, or four rupees' worth, of gold per annum. Since the British occupation of the country, the pursuit of the precious metal has dwindled almost to nothing, and the lease of the gold-washings in North Lakhimpur has of late years been sold for Rs. 5 or Rs. 6 a year. In 1882, a European speculator obtained a monopoly for ten years of the right of seeking gold in the Subansiri and its tributaries, but his operations were not attended with success. In 1894, a syndicate was formed and considerable sums of money were expended on the exploration of the rivers of the Lakhimpur district; but gold was not found anywhere in paying quantities, and no return was obtained on the capital embarked in the venture. A new prospecting license has lately been granted in respect of gold in this river. Traces of gold have also been found at Maoflang and near Laitlongkot in the Khasi Hills.

Platinum.

51. Platinum has been noticed with samples of gold obtained from washings in the Noa Dihing river, and it is possible that, if specially searched for, it might be found in large quantities ("Records of the Geological Survey," Volume XV, page 54).

Manufactures: Tea.

52. Tea is the most important article of manufacture in Assam. The total quantity of tea produced in 1911 is returned as nearly 179 million pounds, of which 106 million pounds were manufactured in the Brahmaputra and 73 million pounds in the Surma Valley. A sketch of the tea industry has been given in paragraphs 30 and 31. There are 10 saw-mills in the province which turn out tea-boxes and scantlings and there are brick and pipe works at Ledo. A large refinery has been erected near the oil-wells at Digboi, and a trade has been established in petroleum oil and candles, the outturn for the year 1911-1912 being oil 2,372,564 gallons, wax and candles 1,708,221 lbs. or 213,527 gallons.

Native manufactures generally.

53. The native manufactures of Assam are not of great importance, and the peculiar conditions under which they are carried on render it difficult to form an accurate estimate of their progress or decline. The indigenous social organization of the Brahmaputra Valley reflects that imperfect division of labour which marks a primitive community, and handicrafts, which in other parts of India are confined to special castes, are practised as household industries in Assam Proper. This is true to an even greater extent of the hill districts, while the industrial development of the Surma Valley resembles more closely that of the neighbouring districts of Eastern Bengal. The province possesses no large cities where artisans can find scope for employment, and carpenters, blacksmiths, wheelwrights and masons have, for the most part, to be imported from other parts of India and paid at extremely high rates. The list of indigenous Assamese manufactures comprises silk thread and fabrics, cotton fabrics woven mostly from imported thread, brass utensils, oil expressed from the seeds of mustard and *til*, coarse sugar, a few kinds of jewellery, some ornamental articles in ivory, and common domestic pottery and agricultural implements.

Silk.

54. The silk fabrics are the produce chiefly of the Assam Valley. The various kinds of silk have been described in paragraph 32. The white cloth made of *pat* silk is an article of luxury; most respectable families in Upper Assam possess *pat* silk cloths, which are worn at marriages and other festivities, but specimens cannot easily be obtained except on order. The price of the *muga* and *eri* silks has also risen fourfold within the last fifty years; but this circumstance is probably due in part to the influx of money into the province, while it is by no means certain that these silks were at any time more easily procurable than they are now. The earliest mention of them is to be found in Muhammad Kasim's Chronicle of Mir Jumla's invasion of

Assam in 1662, and it was then observed that the silks, though good, were produced in quantities sufficient only for domestic consumption, which is very much the case at the present time. The *muga* silk, which has a bright yellow colour and a pretty gloss, is used as an article of dress by the wealthier classes in the Assam Valley, and is exported to the southern hills, where it is much sought after by the Garos, Khasis, and other hill tribes. *Muga* thread is also exported to Bengal. *Eri* silk, which is more extensively manufactured than *muga*, is generally worn in the cold months by the peasantry of the Assam Valley. The cloth is of a drab colour, and is often extremely coarse, but always very durable. A superior piece of *eri* cloth is nearly as white as linen, and fine enough to make a travelling dress for a lady. The cloth is purchased in considerable quantities by Bhutia traders, and by the hill tribes to the north and north-east of Sadiya, and is also exported to Bengal. By the Kukis and Mikirs in the lower parts of the central range of Assam, the thread is woven into the striped cloths which form the ordinary dress of all the tribes inhabiting those highlands. It is impossible to give even an approximate estimate of the quantity of *muga* or *eri* produced annually in any part of the province. The value of *eri* thread is Rs. 5 to Rs. 7 per seer; of *muga* thread Rs. 8 to Rs. 12; while good *eri* cloth sells at Re. 1-8 and good *muga* at Rs. 2-4 per square yard. The manufacture of both *muga* and *eri* silk is purely domestic. There are no large filatures, nor is there any system of breeding the worms on an extensive scale. The raiyat breeds silkworms enough to yield him a few chhataks of thread, which he either weaves himself, or disposes of at the village fair. There is no regular trade in silk yarns or fabrics, nor any stated market where they can be bought in large quantities. But a very large proportion of the Assamese raiyats wear silk in place of the cotton cloths used elsewhere in India.

Cotton.

55. The weaving of cotton cloth is very generally practised as a home industry by women in the Assam Valley. Weaving among the Assamese forms part of a girl's education and of a woman's ordinary household duties, and in former times the women generally made their own cloths, and those of the men as well. In recent years there has been a change in the habits of the people in this respect. Cotton fabrics imported from Europe and from other parts of India can be purchased at a moderate price, and these, though less lasting, are much finer in texture than those usually made by the Assamese. Accordingly, among the richer classes, the women have given up weaving for ordinary wear, and confine themselves to the production of cloths delicately and tastefully ornamented with borders and patterns of silk, or gold or silver thread. These are made for private use only, and cannot be purchased. The poorer classes still, to a large extent, weave their own coarse clothing. In the Surma Valley weaving was never a household industry, but was confined to the Tantis and Jugis (or Naths), professional weaving castes. In both valleys the thread used is almost all imported, and cotton-spinning has practically become a lost art. The hill tribes, however, spin their own cotton. Among them weaving occupies much the same position as in the Assam Valley, and the cloths they make exhibit great variety of pattern, being often gaily coloured with native dyes.

Brass.

56. Brass utensils are made by the Morias, a low Muhammadan caste found chiefly in the districts of Sibsagar and Nowgong. These are of the rudest kind, without any attempt at finish or ornamentation. A style of vessels somewhat superior to these is made at Gauhati and at Sarthibari in Kamrup.

Oil and sugar.

57. The manufacture of mustard oil is of modern introduction. The mill used is the ordinary bullock-mill of Upper India, and is gradually supplanting the domestic oil press, which consists simply of a short beam loaded with a heavy stone. Of late mills propelled by steam have been started in Kamrup, Lakhimpur, Nowgong, and the manufacture of mustard oil is on the increase, the figures of imports and exports of oil during the year being 112,774 maunds and 2,276 maunds, respectively. Of recent years there has been a considerable extension of sugarcane cultivation with a corresponding fall in the price of *gur* or jaggery, which is generally produced by the most primitive methods. A beginning has, however, been made in the introduction of improved iron sugar mills.

Jewellery.

58. The most artistic jewellery produced in Assam is the gold filigree work made at Barpeta and the enamelled ear-rings and lockets of Jorhat. The Khasi bracelets, necklets, and ear-rings in gold and silver are handsome ornaments, though somewhat heavy in design; and the Manipuri jewellery of similar patterns is imitated in Sylhet.

Sylhet manufactures.

59. The district of Sylhet is noted for its ivory mats and fans, and the manufacture of shell bracelets gives employment to a large number of artificers in the town of Sylhet. These bracelets are cut out as solid rings from large white conch-shells obtained from many places on the sea coast in and near India. They are of graceful

appearance, and command a ready sale. In pargana Patharia, in this district, there is a considerable manufacture of *agar attar*, a perfume distilled from the resinous sap of the *agar* tree (*Aquilaria agallocha*). This perfume is much esteemed by Oriental nations, and is exported, *viâ* Calcutta, to Turkey and Arabia. Ironwork inlaid with brass, *talwars* and *daos*, and such like articles, are manufactured in Rajnagar and Lashkarpur in Sylhet. Boat-building is also carried on to a considerable extent in that district.

Boats.

60. The boat-making of Barpeta ought, perhaps, to be mentioned in a catalogue of provincial industries. The roughly-hollowed logs are floated across from the Garo Hills, and, after being further excavated till the thickness of the outer skin is reduced to about an inch and a quarter, they are subjected to a steaming process in the boat-builder's hands, being smeared with liquid mud and inverted over a line of burning embers. While thus softened, the future boat is widened by the insertion of thwarts. If, as usually happens, it splits in the process, the rent is patched with a piece of wood fastened in by clamps holding its bevelled edges to those of the aperture. In this way boats sixty feet long by six or seven feet in breadth are constructed, capable of lasting, if the wood be good forest timber, for ten years or even longer. The same process is followed elsewhere in the valley where boats are made. A considerable number of boats are also built in the Surma Valley.

61. The trade of Assam is carried on in two different directions: first, the internal and external trade by rail and river, and, secondly, the trade with the Foreign States and tribes which surround British territory on the north and east.

For the purpose of recording the trade by rail and river, the province has been divided into three blocks, *viz.*, the Upper Assam, Lower Assam and Surma Valley. Records of the trade by rail and steamer between the three blocks and with other provinces are prepared in the Railway Audit offices and the Steamship Companies from the invoices of goods despatched. Similarly, the registering stations at Dhubri on the *Brahmaputra* and Bhairab Bazar on the *Meghna* record all trade that enters or leaves the Brahmaputra and the Surma Valley by country boat. The trade carried by steamer and country boats between Calcutta and Assam is registered separately.

Almost the whole of the external trade of Assam is with Bengal; chiefly with Calcutta where it sends about 60 per cent. of its exports and whence it receives 70 per cent. of its imports. The great bulk of the goods is still carried by waterways, though the traffic of the Assam-Bengal Railway is increasing year by year. River-borne trade of the Assam Valley goes chiefly by steamer; but in the Surma Valley, and especially in Sylhet, country boats are largely employed.

Trans-frontier trade by land is carried on with Bhutan, the Towang and Charduar Bhutias, Aka and Dafla tribes, Abor, Mishmi, Naga and Khamti tribes. Statistics are collected by special agency, *viz.*, paid Registrars, the local Police and Mauzadars, on the channels of communication or by the collection of statistics at the various fairs or marts in the frontier districts to which the neighbouring tribesmen resort. Traffic in forest produce is registered by the local forest offices. The trade is largely carried on by barter. The principal imports arer ubber, wax, ponies, blankets and musk; the exports, cotton cloth and yarn, silk and metals.

There is very little road traffic between Assam and Bengal and the only commodities, which are occasionally brought into the province by road from the adjoining Bengal districts, are cattle, ponies and other live-stock.

Trading classes.

62. The classes who conduct the trade of the province are different in the two valleys. In both, tea, the great export of Assam, is consigned straight from the gardens where it is produced to Calcutta, either to be sold there or shipped to England for sale. A small but increasing proportion of the tea crop of the Surma Valley is exported from Chittagong, where it is conveyed by the Assam-Bengal Railway. A considerable share of the export trade in mustard from the Assam Valley is in the hands of a class of traders who are natives of the Kamrup district, but almost all the rest of the export traffic, and nearly the whole of the import traffic, of the valley is carried on by Marwari traders, commonly called Kaiyas. Besides these, there are a few Muhammadan merchants from Dacca, who have settlements in the chief centres; but their transactions are small compared with those of the Kaiyas. It is very remarkable to notice the complete mastery of the internal commerce of the valley which these strangers possess. The Marwari is found, keen to buy and sell, wherever money is to be made; he settles himself not only in the populous villages of the inhabited region, but in the midst of the jungle, on the paths leading to the mountains from which the wild tribes come; and it is exclusively with him that these visitors do business.

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In the Surma Valley the conditions are different. Here there are comparatively few Marwaris, though they are not altogether absent. The native population contains a large trading element, and merchants from Dacca are more numerous than in Assam.

In the hill districts there are considerable differences in the extent to which the tribesmen engage in trade. In most of these tracts, traffic is a necessary of life, the hills not producing sufficient food for the people to live upon; but in most also it takes the simple form of barter, the exports consisting chiefly of cotton, wax, ivory and forest produce, and the imports of rice, salt, dried fish, and cloths. But in the Khasi and Jaintia Hills there is a much more active commerce. The valuable staples of this tract have already been mentioned, and the trade in them is kept by the people almost entirely in their own hands. Many of them are adventurous merchants, travelling as far as Dacca, or even Calcutta, during the cold season. In the Naga Hills, too, the Angami Nagas, who occupy the central region, though producing nothing of commercial importance themselves, do a thriving business as carriers between Manipur and Assam, and spend much money in the market of the plains in the purchase of articles of use or luxury for themselves.

63. All over the province there are weekly *hâts*, or markets, on stated days, where buyers and sellers meet, and most of the business is done. Except at a few places there are no permanent *bazars*. During the cold weather, fairs are held along the foot of the hills which mark the frontier, and to these the hillmen come down with their produce. The most important permanent centres of commerce are Goalpara, Barpeta, Rangia, Gauhati, Tezpur, Nowgong, Bishnath, Golaghat, Jorhat, Lakhimpur, Dibrugarh and Sadiya in the Assam Valley; and Habiganj, Ajmiriganj, Sunamganj, Chhatak, Balaganj, Sylhet and Silchar in the Surma Valley. The cold weather fairs for frontier trade are held at Udalguri, Kherkheria and Daimara in the Darrang district for the Bhutias; and at Sadiya in the Lakhimpur district for the Abors, Mishmis, Khamtis and Singphos. Besides these places, the Bhutias resort largely to various marts in North Kamrup, the Akas and Daflas to Tezpur, the Daflas and Miris to Lakhimpur, and the southern Nagas to Jaipur and Golaghat. In the Surma Valley, Barkhola is the chief mart for North Cachar, Jaintiapur for the Jaintia Hills, and Lakhat, Bholaganj and several other smaller markets to the east for the Khasi Hills. The Manipur trade is chiefly carried on at Lakhipur, and that with Hill Tippera down the rivers which emerge from that country into Sylhet.

POLITICAL.

SECTION 2.—Historical Summary.

Introductory.

64. The different portions of territory included in the province of Assam were formerly quite distinct, and have different histories. They were brought under British Administration at different times and in different ways, and it is, therefore, necessary to treat them separately before proceeding to describe the present organization of the province. This section accordingly gives separately the history of the following areas:—

I. Assam Proper, that is, the five districts of Kamrup, Darrang, Nowgong, Sibsagar, and Lakhimpur.
II. Goalpara, including the Eastern Duars.
III. Cachar.
IV. Sylhet, including Jaintia.
V. The hill districts, *viz.*,—
(1) The Garo Hills.
(2) The Khasi ,,
(3) North Cachar.
(4) The Naga Hills.
(5) The Lushai Hills.

Assam Proper—The ancient Kamarupa.

65. The history of so much of the valley of the Brahmaputra as belongs to the modern province of Assam may be said to begin with the growth of the Koch power upon its western frontier, and the invasion of the Ahoms in the east. From such hints and glimpses of the country as can be gathered from the *Tantras* and *Purans*, and other ancient writings, it appears certain that, while the bulk of the inhabitants have always been of non-Aryan origin, the colonisation or conquest of parts of the valley by Aryan settlers began at an early date. Krishna is said to have carried away his bride Rukmini from her father Bhismaka, king of Kundilya, the name of whose kingdom survives in the Kundil river to the east of Sadiya, while the memory of the monarch is still preserved in Upper Assam. Krishna's son, Anirudha, captured Sonitpur, now called Tezpur, the capital of Raja Ban, and carried off his

daughter Usha.* Still more famous than Raja Ban was his contemporary, Narak, who ruled in Gauhati, and is famed in Hindu mythology as the guardian of Kamakhya and the conqueror of Ghatak, the king of the Kirats. He is said to have been the son of the earth by Vishnu, and for a long time enjoyed the favour of his celestial progenitor. But success turned his head, and his pride and waywardness at length gave such offence to Vishnu, that he was slain by him in the incarnation of Krishna. His son Bhogdatta is renowned for his zeal in propagating the Hindu religion, and is said to have given his daughter in marriage to Duryodhana, and to have fallen in the battle of Kurukshetra, fighting on the Kauravas' side. Later on, we find a king of Kamarupa sending a present of elephants to the hero of that *Raghuvansa*, and again when Hiouen Thsang visited India, Kamarupa is mentioned as a country famous for these animals. Kamarupa is described in the *Jogini Tantra* as extending from the Karatuya to the eastern boundary of the Brahmaputra Valley.† Its ancient divisions were Kampith, from the Karatuya to the Sankosh, Ratnapith, from the Sankosh to the Rupohi in the present district of Kamrup, Suvarnapith, from the Rupohi to the Bhoroli, and Saumarpith, from the latter river to the eastern end of the valley. The name Kamarupa, however, varied greatly in its territorial signification from time to time. Between these legendary notices of Assam and the beginnings of what may be called history, a gap of about a thousand years intervenes; but the Hindu religion would seem to have existed uninterruptedly during this interval at various points in the valley, whether professed by pure Aryans, or, as is more likely, by communities of mixed descent, or by converted non-Aryan tribes. A Sudra king, named Debeswar, reigned in Gauhati, a place which the proximity of the sacred hill Nilachal has always rendered notable. The temple of Kamakhya on its summit is of comparatively modern origin, but rests on foundations reputed to be as old as the first introduction of the Hindu religion into the valley of the Brahmaputra. In Tezpur we find Raja Nagasankar, who built the temple of Biswanath and whose descendant, Jongal Balahu, was defeated in battle by the Kachari Raja, near Roha on the Kapili.‡

When Hiouen Thsang visited the country in 640A.D., a prince named Kumar Bhaskara Barman was on the throne. The people are described as being of small stature, with dark yellow complexions. They were fierce in appearance, but upright and studious. Hinduism was the State religion, and the number of Buddhists was very small. The soil was deep and fertile, and the towns were surrounded by moats with water brought from rivers or banked-up lakes.§

66. Subsequently, we read of Pal rulers in Assam. It is supposed that these kings were Buddhists, and belonged to the Pal dynasty of Bengal. The latter supposition is strengthened by the recent discovery at Benares of a copper plate, on which is inscribed a deed of gift of some land in the neighbourhood of Pragjyotisha (Gauhati) by Kumara Pal, son of Rama Pal and grandson of Vigraha Pal, the names of the two latter being the same as those of two of the later kings of the Bengal line of Pals.‖ The fact that Deva Pal (who ruled from about 895 to 915A.D.) conquered Kamarupa¶ furnishes another reason for supposing that the Assam Pals were a branch of the royal family ruling in Bengal, even if they were not lineal descendants of that dynasty. It should, however, be noted that "Pal" was not an uncommon title at the period under discussion. It was the designation of many of the Baro Bhuiyas, and was also borne by an Aryan dynasty reigning over Kundilya, or the country about Sadiya. Pal rulers.

67. After the fall of the Pal dynasty, the Khyen tribe under Niladhwaj rose to power, and thus became worthy of the attention of the Brahmans.** Niladhwaj became a Hindu, and ordered that his caste should thenceforth be known as "High Sudra." He was succeeded by his son Chakradhwaj, who was followed by Nilambar, the last king of this line. Nilambar quarrelled with his councillor, a Brahman named Suchi Patra, and the latter fled to the Nawab of Gaur, and persuaded him to invade the country. The result was Husan Shah's invasion, and the fall of the capital, Kamatapur, in 1498A.D.†† The remains of this old city are still traceable, near the Dharla, in the State of Koch Bihar.‡‡ Khyen dynasty.

* The adventures of Krishna and the life of Narak are described in Chapters 36-42 of the *Kalika Purax*, and on page 81 of the *Jogini Tantra*. *Raghuvansa*, IV—81.

† *Jogini Tantra*, page 76.

‡ Gunabhiram's *Asam Buranji*, page 48.

§ Beal's "Buddhist Records of the Western World," Volume II, page 196.

‖ This copper plate, which bears a date equivalent to 1105A.D., was deciphered by Professor Venis of the Government Sanskrit College at Benares.

¶ "Journal of the Asiatic Society of Bengal," 1878, page 407.

** Gunabhiram's *Asam Buranji*, pages 52-54.

†† The Musalman accounts of the fall of Kamatapur have been reproduced by Blochmann in the "Journal of the Asiatic Society of Bengal" for 1872, pages 79 and 336, and 1874, page 281.

‡§ The ruins are described by Buchanan Hamilton, whose account is reproduced in Dr. Hunter's "Statistical Account of Koch Bihar," page 362.

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Baro Bhuiyas.

68. Although the whole of Kamarupa appears from time to time to have been united into one kingdom under some unusually powerful monarch, it was more often split up into numerous petty States, each of which, under its own chief, was practically independent of the rest, and this was once more the condition of the country after the defeat of Nilambar. About this time, two brothers, Chandan and Madan, ruled for a few years at Maralavas, some miles north of Kamatapur,* and the twelve chiefs, known as the Baro Bhuiyas, were exercising sovereign rights in Kamrup and Goalpara.

The settlement of the Bhuiyas in Assam is detailed in the *Guru Charitra*, in which work it is said that they were introduced by a king named Durlabh Narayan, who appears to have held sway in Goalpara and Kamrup, but whose lineage is still uncertain. This king engaged in war with a Hindu prince, who called himself Gaureswar, or "the ruler of Gaur." Durlabh was victorious, and on the conclusion of hostilities obtained seven families of Brahmans and seven of Kayasthas under twelve acknowledged heads, the chief of whom was a Kayastha, named Chandibar *alias* Debidas. These people were settled by Durlabh Narayan in the country between Hajo and the Bornadi, and soon became powerful feudatories. The date assigned to their advent in Assam corresponds to the year 1220 A.D. Their leader Chandibar was the lineal ancestor of the celebrated Assamese religious reformer Sankar Deb.†

The Ahoms.

69. Nearly three centuries before the fall of Kamatapur, an event occurred at the eastern extremity of the valley, which was destined to change the whole course of Assam history.‡ This was the invasion of the Ahoms. The Ahoms were Shans, from the ancient Shan kingdom of Pong, whose capital, Mogaung, still exists in the upper portion of the valley of the Irrawaddy. A quarrel as to the right of succession to the throne is said to have been the cause of the secession of Chukapha, one of the rival claimants, who, after wandering about the country between the Irrawaddy and the Patkoi mountains for some years, at length crossed the range and entered Assam with a small following. This was in the year 1228A.D. The Ahoms found the country into which they descended peopled by small settlements of Morans and Borahis, people of the Bodo race, whom they had no difficulty in subduing. There was, however, a Chutia kingdom of considerable power in the background, which had absorbed the ancient Pal dynasty of Sadiya, and in so doing had adopted the Hindu religion, and imported an Aryan strain into the royal blood by the marriage of the Pal king's daughter with the Chutia prince who succeeded him. The Chutia dynasty at that time reigned at Sadiya and at Rangpur in the Sibsagar district, but their dominions did not extend uninterruptedly between the two places, nor did they reach very far back towards the southern hills, and the Ahoms consequently had room in which to develop themselves, for a considerable time, before coming into collision with the actual possessors of Upper Assam. Within the narrow limits of a territory corresponding to the south-eastern portion of Lakhimpur and part of the Sibsagar district, the Ahom kings succeeded each other with great regularity, governing through the means of their chief officers of State, whose names and the dates of whose appointments are duly chronicled in the native histories of Assam, together with the names of the kings and their dates of accession. We read that in 1350 A.D. the Chutia king invited his Ahom neighbour to a boat race on the Safrai river, and there treacherously captured and murdered him; but the final struggle between Ahom and Chutia for the supremacy of Upper Assam did not take place until a century and a half later. Meanwhile, the Ahoms, extending their power along the south bank of the Brahmaputra, drove the Kacharis back to the Kapili and Dhansiri Valleys, and thus touched the Koch power on the west, as they touched the Chutia power on the north-east. The three powers among which the contest for the Assam Valley lay were the Koch, the Ahom, and the Chutia.

The Koch kings.

70. We have seen that, after the fall of Nilambar, the eastern portion of Kamarupa was split up into numerous petty States, each of which was ruled by its own chief. Amongst these, the Koch kings rapidly forced their way to the front.§ The legend runs that Hajo Koch had two daughters, Hira and Jira, whom he married

* Hunter's "Statistical Account of Koch Bihar," page 407.

† This seems too early. Chandibar was Sankar Deb's great-great-grandfather, and we have every reason of believing that the tradition that Sankar Deb was born in 1440 A.D. is approximately correct. Allowing twenty-five years to a generation, it would seem that Chandibar could not well have come to Assam before 1300 A.D. at the earliest.

‡ The above account of the Ahoms is taken from Kasinath Tamuli Phukan's *Asam Buranji*, which was compiled about 1840A.D. under the orders of Raja Purandar Singh. The Ahoms appear to have possessed the historical faculty to a very considerable extent, and many of their leading families maintained chronicles of important events. Our information regarding Ahom history would have been much fuller than it is but for an act of literary iconoclasm in the reign of Rajeswar Singh (1751-1768), when many of these family histories were destroyed, owing to some remarks adverse to the Prime Minister having been made in a history produced by Numali Bar Phukan.

§ The story as related here follows the *Bangsabali* of Raja Lakshmi Narayan Kuar of Howli Mohanpur. This *Bangsabali* is inscribed on oblong strips of *Sachi* bark, each strip being illustrated. It is supposed to have been written under the orders of Raja Sumudra Narayan about 1803A.D. This version differs in some respects from accounts given elsewhere, but seems, on the whole, to be the most trustworthy narrative available.

to Hasia Mandal, a Mech. Hira was an incarnation of Bhagavati, and was visited by Siva in the guise of Haria Mandal. The offspring of this intercourse was a son, Bisu, who consolidated the power of his tribe, and defeated the Baro Bhuiyas, who had become powerful during the reign of Nilambar. He became a Hindu, taking the name of Biswa Singh, and imported Baidik Brahmans from Sylhet in the place of the Kalitas, who were previously the priests of his tribe. He made an abortive attempt to invade the country of the Ahoms, but was more successful in the internal management of his kingdom. He settled the different offices of State, and established his army on a secure basis. During his reign, the Ahoms attacked the Chutias, and, after several campaigns of varied fortune, defeated and slew the Chutia king, seized his capital, and overthrew the Chutia dominion in Upper Assam for ever. His son, Nar Narayan, succeeded him about 1528 A.D., and at once commenced a series of expeditions against the neighbouring powers. He defeated the Ahoms, and made them tributary to him. His brother Sukladhwaj, *alias* Silarai, subsequently conquered the kings of Hiramba (Cachar), Jaintia and Sylhet, but was defeated and made prisoner by the Musalman ruler of Gaur. Silarai's son, Raghu, was adopted by Nar Narayan as his successor. Then Silarai died, and Nar Narayan begat a son of his own, named Lakshmi, whereupon Raghu, fearing that he would lose the succession, broke out in rebellion. The armies met, but a peace was concluded without bloodshed. The kingdom was divided into two parts, Raghu taking the portion east of the Sankosh, while the part west of that river was reserved for Nar Narayan's son Lakshmi. This division of the kingdom took place about 1581A.D.

Raghu was succeeded by his son Parikshit, who fought with and defeated Lakshmi. The latter then invoked the aid of the Emperor of Delhi, by whose troops the former was in his turn defeated and made prisoner. His brother, Balit Narayan, fled to the Ahom Raja, Swarga Narayan, who sent an army against the Musalmans, and drove them across the Karatuya. From that time, the independent rule of the Koch kings ceased. Balit Narayan became a tributary of the Ahoms, and the western branch succumbed to the Musalmans.

Musalman invasion.

71. The Musalman invasions of the Brahmaputra Valley all bear the character of temporary success due to superior arms and discipline, and ultimate failure induced by the unfavourable nature of the climate, ignorance of the country, want of communications and the impossibility of repairing losses by reinforcements.* The first expedition of the kind was despatched after the overthrow of the kingdom of Kamatapur, under a leader recorded in Assamese history as Turbuk, who fought his way as far as Koliabar, and was then defeated and destroyed. A second invasion occurred about the middle of the sixteenth century. The leader of this expedition was Kala Pahar, an apostate from Hinduism, whose chief object appears to have been the destruction of Hindu temples, and to whom is ascribed the spoliation of the old temples at Hajo and Kamakhya. The next invasion was that already referred to, in which Parikshit was overthrown, and this was followed later by another (in 1637) in which Balit Narayan was slain, and the rule of the Musalmans was extended as far as Gauhati. The last and greatest invasion was that undertaken by Mir Jumla in 1660-62. He captured the capital of the Ahoms, and is said to have sent words to the Emperor that the next campaign would carry him to the confines of China. His force, however, melted away in the rains, and he was obliged to retreat with the loss of all his guns. The ultimate result of this disastrous invasion was to strengthen the hold of the Ahoms on Lower Assam, and their rule was shortly afterwards extended to Gauhati, at which place an Ahom Governor was stationed, until near the end of the eighteenth century, when it became the headquarters of the Ahom kings.

Fall of the Ahom kingdom.

72. It is said that the Ahoms brought no women with them in their invasion and took to wife girls of the country. This may explain their loss of individuality as a race of Burmese origin. At the present time few of them retain any knowledge of their own language. They had been largely converted to Hinduism before the last Muhammadan invasion. The reigning monarch became a convert in 1655A.D., and adopted the name of Jayadwaja Singh, and henceforward all the Ahom kings bear both Ahom and Hindu names. There were now no rivals to the Ahoms in the Assam Valley. The Kacharis had been defeated just before Mir Jumla's invasion, and the Rajas of Darrang and Bijni had become tributary to the Ahom power on the fall of the Koch monarchy. In 1695, Rudra Singh, the greatest of the Ahom kings, ascended the throne. His dominions comprised the whole of the Brahmaputra Valley, so far as it was inhabited, except a strip of submontane territory claimed by the Bhutias. In 1780, Gaurinath Singh succeeded to the throne. His reign was marked chiefly by a formidable rising of the Moamarias, a powerful religious sect. Gaurinath, being

* The accounts of these invasions, furnished by Musalman historians, have been collected by Blochmann in an article in the "Journal of the Asiatic Society of Bengal" for 1872.

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hardpressed, applied in his extremity to Mr. Rausch, a salt farmer at Goalpara. Mr. Rausch, it is said, sent a body of 700 *sipahis* to Gaurinath's aid, but these *sipahis* were cut to pieces by the Moamarias. The Raja of Manipur also sent an armed force to Gaurinath's assistance, but the Manipuris were likewise defeated. At this juncture, the king of Darrang, Krishna Narayan, taking advantage of Gaurinath's distress, made an attack upon Gauhati, whither Gaurinath had retired. Gaurinath again applied to Mr Rausch for help, and also sent a deputation to Calcutta. At the close of 1792 the British Government sent a detachment, under the command of Captain Welsh, to assist Gaurinath.* Captain Welsh defeated Krishna Narayan, put down the Moamaria insurrection, and reduced the whole valley to obedience. He was, however, recalled in 1794. A few months later Gaurinath died. He was succeeded by Kamaleswar Singh, who was a mere puppet in the hands of his minister. He died in 1809, and was succeeded by his brother, Chandra Kanta Singh. The reign of this prince was marked by the appearance of the Burmese in Assam. Chandra Kanta, having quarrelled with his minister, the Bura Gohain, applied for aid to the Burmese. The Burmese entered Assam with a force with which the Assamese were utterly unable to cope. Shortly afterwards, however, the Burmese retired, when the Bura Gohain deposed Chandra Kanta and set up Purandar Singh. Chandra Kanta again applied to the Burmese, who sent an army and reinstated him. In 1819, Purandar Singh applied for aid to the British Government, but was refused. Chandra Kanta, however, quarrelled with the Burmese, who finally expelled him from Assam, and he sought refuge with the British officers at Goalpara. At this juncture matters had come to a crisis between the British and the Burmese, and on the 5th March 1824 war was declared against Burma.† A British force, advancing with a gunboat flotilla, conquered the valley as far as Koliabar, and during the next cold season completed the subjugation of the rest. Finally, on the 24th February 1826, the Burmese, by the treaty of Yandaboo, ceded Assam to the East India Company.

Commencement of British rule.

73. For some time after the conquest, it was still doubtful whether the Company would retain in their hands the province they had won. Mr. Scott, the Commissioner of North-East Rangpur, administered the country, Captain White being appointed in 1827 to assist him in Lower Assam, and Captain Neufville in 1828 to have charge under him of Upper Assam. The Moamarias, who had contributed so largely to the downfall of the Ahom power, and whose country (known as Matak) was the present district of Dibrugarh south of the Brahmaputra, were left under their own ruler, styled the Bor Senapati, who in May 1826 executed an agreement of allegiance to the British Government. And the Hkamti chief of Sadiya, called the Sadiya-khoa, on the 15th of the same month, was confirmed as the Company's feudatory in possession of that district.

At first, the civil and criminal duties of Assam Proper were performed by councils of the Assamese gentry, called *panchayats*, of which there were two or three in each district of the province. In judicial cases Captains White and Neufville were both Magistrates and Judges, trying the accused with the assistance of a *panchayat*, but referring all heinous cases, with their opinions, to Mr. Scott for final judgment.‡

Rule of Purandar Singh in Upper Assam.

74. In 1833 the districts of Sibsagar and Lakhimpur north of the Brahmaputra were placed under the administration of Raja Purandar Singh, who executed a treaty binding himself to administer the country upon the principles of justice established in their territories by the East India Company, to act according to the advice of the Political Agent stationed in his principality, and to pay an annual tribute of Rs. 50,000. Thus, of Assam Proper there remained British in 1833 only the districts of Kamrup, Nowgong and Darrang (which then only extended to and included Bishnath, beyond which was Lakhimpur, subject to Purandar Singh).

The Assam Code.

75. In 1835, Act II of that year was passed, which placed all functionaries in British Assam under the control and superintendence, in civil and criminal cases, of the Sadr Court, and in revenue cases under that of the Board of Revenue, Lower Provinces, and further declared that such superintendence should be exercised in conformity with the instructions which these functionaries might receive from the Government of Fort William in Bengal. Under this Act, rules for the administration of Assam were framed by the Commissioner, revised by the Sadr Court, and finally issued by the Court with the sanction of Government in 1837. They applied not only to Assam Proper but also to Goalpara. These rules consisted of extracts from the

* A full account of Captain Welsh's expedition has been given by Sir J. Johnston in a pamphlet published by the Foreign Department some years ago.

† A full account of the Burmese war, so far as Assam is concerned, will be found in Robinson's "Descriptive Account of Assam," published in 1841, pages 180-188.

‡ The information in this and the next paragraph is taken from Robinson's "Descriptive Account of Assam," pages 207-211.

Bengal Regulations of all that was considered at that time suitable to the circumstances and necessary for the proper administration of Assam. They were, however, merely rules of judicial procedure. They declared what courts, civil and criminal, should be established, and the mode of appointing officers thereto; they declared the jurisdiction of these courts, and provided for appeals; they prescribed a period of limitation for the institution of civil suits and the procedure to be followed in mortgage cases; they provided also for the appointment of *vakils*, the establishment and remuneration of process-servers, and the keeping of judicial registers and records. They established in each district a summary suit court, to be presided over generally by the Assistant in charge of the district (now called the Deputy Commissioner) in his capacity of Collector; they also established an office for the registry of deeds. Lastly, in all cases not specially provided for in the rules, officers were directed to conform, as nearly as the circumstances of the province would permit, to the provisions of the Bengal Regulations, and in all doubtful matters of a judicial nature to refer for instructions to the Sadr Court. The Police Law of Assam was at the same time declared to be Regulation XX of 1817 with certain modifications.

In 1839, a few supplementary civil rules were issued by the Sadr Court with the sanction of Government, the effect of which was to give to Junior Assistants (now called Assistant Commissioners) and Sub-Assistants (now called Extra Assistant Commissioners) a greater share in the judicial administration of the country than was allowed to them by the rules of 1837; and in the same year an officer, styled Deputy Commissioner (whose designation was in 1861 changed to that of Judicial Commissioner), was appointed to relieve the Commissioner of his duties as Civil and Sessions Judge.

Resumption of Upper Assam.

76. In October 1838, the territories which had been placed in charge of Purandar Singh were resumed by the Government of India. The Raja had fallen deeply into arrears with his tribute, and declared himself unable any longer to carry on the administration. At first, the officers placed in charge of this tract acted under the direct orders of the Government of India in the Foreign Department; but in July 1839 a proclamation was issued by the Governor General in Council annexing the territory to Bengal, dividing it into two districts, Sibsagar and Lakhimpur, and directing that these two districts should be administered in the same manner as the districts of Lower Assam. In August 1842 another proclamation was issued, annexing the territory of the Bor Senapati, who had died in 1839, and whose son refused to accept the management of the country on the terms offered to him. Sadiya, the district of the Hkamti chief, was, by the same proclamation, incorporated with the rest of the province. This place had been the scene of a rising of the Hkamtis in 1839. They treacherously attacked the station of Sadiya, and killed the Political Agent, Colonel White. The combination was not broken up and dispersed till many lives had been lost. The son of the Sadiya-khoa, for his complicity in this rebellion, was exiled with his followers to Narayanpur, on the Dikrang, in the west of the Lakhimpur district, where the colony still exists.

Thus, from 1842, the whole of Assam Proper was under the same system of administration, save that in Lakhimpur, including Matak and Sadiya, an establishment of *panchayat* courts was, for special reasons, maintained, to which persons of rank and influence in the district were appointed, without much regard to their judicial qualifications. This special *panchayat* system was abolished in 1860.

Extension of general laws to Assam.

77. In that year, Act VIII of 1859 (the Civil Procedure Code) and the Limitation Act (XIV of 1859) were extended to the whole of Assam Proper and Goalpara. In 1861 the Criminal Procedure Code of that year was extended to the province, and in 1862 the Police Act (V of 1861). *In 1862, also, the Penal Code came into force in the province without special extension. By these measures the Assam Code of 1837 (which had been meanwhile revised in 1847) was superseded. In 1861 the designations of the officers serving in the province under the Commissioner were changed,* with the sanction of the Government of India, as follows: the Deputy Commissioner became the Judicial Commissioner, the Senior or Principal Assistants Deputy Commissioners, the Junior Assistants Assistant Commissioners, and the Sub-Assistants Extra Assistant Commissioners. Side by side with these officers, there existed in the province a separate judicial establishment, consisting of one Principal Sadr Amin, two Sadr Amins, and ten Munsifs. In March 1872 this branch of the service was entirely abolished. Several of the Munsifs were created Extra Assistant Commissioners, and the ordinary district staff were invested with civil judicial powers, the Deputy Commissioner becoming Subordinate Judge and the Assistant and Extra Assistant Commissioners Munsifs. This arrangement is substantially that which now exists.

Goalpara—Early history.

78. The Goalpara district consists of two very distinct portions—the permanently-settled part, comprising the three thanas of Goalpara, Dhubri, and Karaibari, and the temporarily-settled part, called the Eastern Duars. The first tract was

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originally a portion of the district of Rangpur, and, as such, was included in the province of Bengal, which, by the Mogul Emperor's *farmàn* of the 12th August 1765, became part of the dominions of the East India Company. Like the neighbouring district of Kamrup, this tract was inhabited chiefly by Koches, Meches, and Kacharis. It formed part of the dominions of the Koch dynasty, the rise and fall of which have already been described, and passed out of their hands on the defeat of Parikshit, when it became a Musalman province.

On its southern border, the Goalpara district marches with the Garo Hills, and the thana of Karaibari, which stretches southwards from Dhubri, is almost wholly composed of hilly country inhabited by Garos. These mountaineers were, in the early period of our rule, a terror to the people of the plains, and the chiefs of the border country, who had to restrain their incursions, were allowed in return for this duty to hold their estates at a very light revenue. Thus it happened that, when the decennial settlement of Bengal was made, the few great zamindars among whom the permanently-settled portion of Goalpara was divided were assessed at an almost nominal amount. It is somewhat doubtful whether this assessment was ever formally converted into a permanent charge; but these estates have uniformly been treated as covered by the permanent settlement of Bengal.

Regulation X of 1822.

79. Shortly after this settlement, it became manifest that the zamindars of the plains country, instead of proving guardians of the peace of the border, were rather likely, by their oppressions and exactions, to foster strife with the Garos of the hills, whose raids were constantly provoked by the treatment they received from the landholders to whose markets they resorted. In order to check these exactions, and to promote the growth of order and civilisation amongst the hill people, it was deemed necessary to place this tract under a special form of administration. Accordingly in 1822, a Regulation (No. X) was passed by the Governor General in Council, exempting the three thanas of north-east Rangpur from the operation of the General Regulations, and placing them under the control of a Special Civil Commissioner. Mr. David Scott was the first official entrusted with the charge, and he took into his own hands the collection of the rents claimed by the zamindars from the Garo villages, paying over to them the proceeds, after deducting the costs of collection and administration. At the same time, the duties levied by the zamindars on the hill produce (chiefly cotton) were commuted to an annual payment by Government, and abolished, Government recouping itself by imposing a special house assessment upon the Garo villages.

Incorporation in Assam Proper.

80. When Assam Proper was conquered from the Burmese in 1826, Mr. Scott became Commissioner of the new province, with which Goalpara was incorporated as a separate district. From that date until 1866 it remained a portion of Assam, and was administered on the same system as the rest of the province.

Transfer to Koch Bihar.

81. In 1866, the Eastern Duars, a thinly-peopled but extensive tract along the base of the Himalayas north of permanently-settled Goalpara, which had previously been under the rule of the Deb Raja of Bhutan, was annexed by the British Government on the conclusion of the Bhutan war. For some little time these Duars were a separate district; but in 1867 the Bengal Commissionership of Koch Bihar was formed, and from the 1st January of that year the Eastern Duars were joined to Goalpara, and the entire district was included in that Commissionership, the Commissioner having the powers of a Civil and Sessions Judge within his jurisdiction. In October 1868, the judicial administration of Goalpara and the Garo Hills was taken away from the Commissioner of Koch Bihar, because of the inconvenient distance of this tract of country from his headquarters, and placed in the hands of the Judicial Commissioner of Assam. The executive control, however, remained, as before, with the Commissioner of Koch Bihar. In 1869, the Garo Hills were formed into a separate district by Act XXII of that year, which repealed Regulation X of 1822, but still exempted the hills from the operation of the General Regulations. In the same year the Eastern Duars were similarly deregulationised by Act XVI of 1869.

Finally, when the Chief Commissionership of Assam was formed in February 1874, the district of Goalpara and the Eastern Duars and the district of the Garo Hills were retransferred to Assam.

Cachar—Early history.

82. The early history of Cachar, or Hiramba, is extremely obscure. Although it bears the same name as that of a section of the Bodo population of Assam, the part of the district south of the Barail was not until some two hundred years ago in the possession of the race now called Kacharis. It would appear that it belonged to the kingdom of Tippera, or Tripura, since it is stated to have been acquired by the Kachari king, who had his capital at Maibong, as a dowry upon his marriage with a Tippera princess. The Tipperas, however, are undoubtedly, as is proved by their language, themselves of the Bodo stock, and very near kinsmen, not only of the Kacharis of North Cachar, but also of those of the Brahmaputra Valley and of the Garos of the Garo Hills. Their

true history, like that of the Kachari kings of Dimapur, Maibong, and Khaspur, has been lost in the fugitive memory of a barbarous people, unacquainted with letters, and has been further darkened by the fictitious genealogies which have been invented for them by Brahman priests on their reception within the pale of Hinduism.

It is, however, certain that the last native king of Cachar was the descendant of a line of princes who came originally from the Assam Valley. Their deserted capital, Dimapur, on the Dhansiri river, beneath the Angami Naga Hills, contains some very striking monuments, the meaning and purpose of which have much perplexed explorers, and a number of large and fine tanks. From this site, now buried in dense jungle, the Kachari kings were forced, by the aggressions of the Ahoms and of the Angami Nagas on the south, to remove into the interior of the hills, and take up their abode at Maibong, on the Mahur river. While settled there, about the beginning or middle of the seventeenth century, the Kachari king married a daughter of the Tippera Raja, and received the valley of Cachar as her dowry. And some time between 1700 and 1750 the court was transferred from the hills, across the Barail, to Khaspur, on the Madhura river in the plains. Here the Kachari rulers found themselves in presence of an already settled population of Hindus and Musalmans from Sylhet, who had overflowed from that district into the valley. The process of Hinduisation had probably already commenced at Maibong, at least among the royal family and the court, if not among the Kachari population. At Khaspur it proceeded rapidly, and in 1790 the formal act of conversion took place, the Raja Krishna Chandra and his brother, Govind Chandra, entering the body of a copper image of a cow, and emerging therefrom as Hindus and Kshatriyas. A genealogy of a hundred generations, reaching to Bhima, the hero of the *Mahabharat*, was composed for them by the Brahmans, only the last nine or ten names in which have probably any claim to represent real personages.

Taken under British protection.

83. In the beginning of the present century the valley of Cachar became the scene of a struggle for supremacy between the Manipuri brothers Marjit, Chaurjit, and Gambhir Singh, who had been driven from their own country by the Burmese. Krishna Chandra had died in 1813, and Govind Chandra succeeded him. The Manipuri invaders speedily overran the country, and set at naught the feeble authority of the Kachari king. In 1823 Marjit held the Hailakandi valley, and Gambhir Singh the rest of South Cachar. The Burmese were then in Assam, and as lords of Manipur (which they had conquered from Marjit in 1819) threatened to annex Cachar. This the British Government, seeing the danger which it would cause to Sylhet, decided to prevent. Negotiations were first entered on with a view to an alliance with the Manipuri brothers. These overtures fell through, and it was resolved to take up the cause of Govind Chandra, who was, with the Raja of Jaintia, taken under British protection. The Burmese armies, which had advanced both from Assam and Manipur, were driven out, and Govind Chandra was replaced on the throne. A treaty was executed on the 6th March 1824, by which the Raja placed himself under British protection, and agreed to pay a tribute of Rs. 10,000.* Govind Chandra's reign after his restoration was very short. He was assassinated in 1830, and, as he left no heir, either natural or adopted, the country was annexed by proclamation on the 14th August 1832.

British rule.

84. In its subsequent history Cachar much resembles Assam. Act VI of 1835 (like Act II of that year in the Assam Valley) placed it under the control of the Sadr Court and Board of Revenue. It was administered from the first by a Superintendent, who in 1833 was vested with the powers of a Magistrate and Collector; and in the same year it was transferred from the supervision of the Commissioner of Assam to that of the Commissioner of Dacca. It differs from Assam in never having had any special code of administrative rules drawn up for it. The officers in charge applied "the spirit of the Regulations" in dealing with judicial matters. The Civil Procedure Code and Limitation Act were formally extended to the district in 1859. In 1862 the Criminal Procedure Code was extended, and the Penal Code came into force.

Since Cachar became British territory, the only important political events which have marked its history have been the Lushai raids of 1849 and subsequent years, which will be discussed in the paragraph dealing with the Lushais. In the Mutiny of 1857 the sepoys of the 34th Native Infantry, who mutinied in Chittagong in November of that year, were met in Cachar, and were defeated and dispersed by the Sylhet Light Infantry.

Sylhet.

85. Of Sylhet under its early Hindu rulers hardly anything is known. It is believed that its native population is largely made up of non-Aryan tribes, probably of the same race as the Bodo Tipperas who now inhabit the hills on its southern

* It is commonly asserted that the Burmese were driven out of Cachar in the course of the first Burmese war. These events, however, occurred before the formal declaration of war (15th March 1824).

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margin. The Rajas who held the country at the date of the Musalman conquest, the chief of whom was Gaur Govind who ruled the south and centre, while the Raja of Laur, under the Khasi Hills, governed the north, had evidently, from their names, been taken up into Hinduism, and the country had been colonised by Brahmans, who gradually extended their proselytising operations. The district was conquered by the Muhammadan kings of Bengal in 1384 A.D., the invaders being led by a spiritual chief named Shah Jalal, whose shrine at Sylhet is still famous. Laur and Jaintia, under the hills, retained their independence during the rule of the Bengal kings. After the absorption of that province in the Mogul Empire under Akbar, Laur became a dependent principality. The last Hindu Raja of Laur embraced Muhammadanism at Delhi in Aurangzeb's reign. Todar Mal assessed Sylhet (excluding Jaintia, which was never conquered by the Moguls, and Laur) at Rs. 1,67,040, and it was ruled continuously from that date, until it passed into the hands of the East India Company with the rest of Bengal in 1865, by a succession of *amils* subordinate to the Nawab of Dacca.

The district was included in the decennial settlement of Bengal, which afterwards became permanent in 1793, but the operation of assessment was conducted in an exceptional manner, each holding being separately measured and settled upon fixed rates. Thus, in Sylhet, the permanent settlement assumed a form which it bears nowhere else except perhaps in Chittagong. It was the policy of the Collector, Mr. J. Willes, to put aside the *chaudhuris* or zamindars, who elsewhere obtained settlement, and to deal direct with the better class of raiyats or *mirasdars*. The result is that the settlement is in great part a permanent *raiyatwari* one, the area which each holding should contain being (so far as the records have been preserved and can be trusted) accurately known. All land not included in the permanent settlement, or not subsequently settled in perpetuity, is held on temporary leases.

The history of Sylhet since the permanent settlement has not been eventful. The depredations of the Khasis on the north were brought to a close by the occupation of the station of Cherrapunji in 1828, while those of the Lushais on the south were stopped, so far as Sylhet is concerned, by the expedition of 1871-72.

Jaintia.

86. The Raja of Jaintia, a Chief of Khasi lineage, was found by us, on the annexation of the Sylhet district, in possession of a tract of plains country lying between the town of Sylhet and the Cachar border and measuring about 450 square miles, in addition to his hill territory stretching from the foot of the hills overlooking the Surma Valley to the Kalang river in Nowgong. At the same time that Cachar was taken under British protection, in March 1824, a treaty was made with Ram Singh, the Raja of Jaintia, by which he acknowledged allegiance to the Company, and promised to aid in the military operations then commenced against the Burmese in Assam. In 1832 four British subjects were seized by Chatter Singh, Chief of Gobha, under the orders of the heir-apparent, Rajendra Singh, and three of them were sacrificed to Kali, the tutelary goddess of the Raja's family. One escaped, and gave information of the outrage, which led to a demand by the British Government for the surrender of the culprits. Negotiations went on for two years without any result. In November 1832 Ram Singh died, and Rajendra Singh succeeded him; and it was finally resolved to punish this atrocious crime (which had been preceded by similar outrages in 1821, 1827, and 1832) by dispossessing the Raja of his territory in the plains, and confining him thenceforth to the hilly tract. On the 15th March 1835 formal possession was taken of Jaintiapur, and the annexation of the plains territory to Sylhet was proclaimed by Colonel Lister. In April the district of Gobha was similarly annexed to Nowgong in Assam. Upon this, the Raja declared himself unwilling to continue in possession of his hill territory, over which he had but little control, and it also became included in the Company's dominions. The population of the plains of Jaintia, like that of Cachar, is made up of Sylhet raiyats, with but a slight leaven of settlers from the hills.

The Garo Hills.

87. The history of the Garo Hills has already been touched upon in the account given of the Goalpara district, in which, up to 1866, they were, so far as British administration extended, included. These hills, peopled by a wild race nearly akin to the Meches or Kacharis of the plains, were surrounded on all sides except the east by the estates of the great frontier zamindars or *chaudhuris* of Rangpur and Mymensingh. The Garos were in the habit of resorting to the markets in the plains estates of these zamindars for the sale of their cotton and the purchase of the supplies they needed; and the police of the border was maintained, and taxation was levied on the hill produce, by the zamindars by means of *barkandazes* whom they established at these marts. The chief of these *chaudhuris* were those of Mechpara, Kalumalupara, and Karaibari in Rangpur, and Sherpur and Shushang in Mymensingh. The Garos, like most of the wild tribes of the north-east frontier, lived in a state of constant internecine warfare, and it was a necessary ceremony at the

funeral of a great chief to bury with him as many human heads as could be procured for the purpose, and, if possible, to put to death on the occasion living captives. The border was thus vexed by constant raids for the purpose of obtaining heads or prisoners, while the exactions of the plains zamindars at the submontane *hâts* likewise furnished frequent occasions for quarrel.

Under the Moguls, the *chaudhuris* of the border paid their assessment in elephants, cotton, and *agar* wood to the *faujdar* of Rangamati, midway between Goalpara and Dhubri. After the Company obtained the *Diwani*, a *sazawal*, or contractor, was annually appointed who took the place of the *faujdar*, and made his own arrangements with the *chaudhuris*. Until 1787 the revenue of these landlords continued to be paid, as before, in kind. Cash payments were introduced in 1788, and the permanent settlement shortly afterwards followed.

Part of the Garos brought within zamindars' estates.

88. In 1775, the *chaudhuris* of Mechpara and Karaibari, to avenge some Garo raids of more than usual severity, invaded the hills bordering on their respective estates and entered on a career of conquest. They remained two or three years in the hills, and brought the tribes of a large tract entirely under their control. The zamindar of Karaibari, Mohendra Narayan, was especially successful in establishing his influence over the south-western portion of the hills, and, when the Company called his proceedings in question, he defied them from his fastnesses. After a long course of warfare with other *chaudhuris* and with the chiefs of the interior, Mahendra Narayan lost his estates, which were at last sold by the Company for arrears of revenue, and his influence gradually dwindled.

Mr. Scott's proposals, 1816.

89. Meantime the raids of the Garos on the plains continued, and in 1816 Mr. David Scott was deputed to report on the best means of preserving the peace of the frontier. He found that at that time the frontier zamindars had for the most part succeeded in reducing a greater or smaller area on their borders to a state of subjection, the largest conquests being those made by Karaibari and Mechpara. Beyond these areas thus incorporated in their zamindaris, the *chaudhuris* had so far established their influence that several villages in the interior paid them tribute. Beyond these, again, in the heart of the hills were the independent or *bemalwa* Garos. Mr. Scott proposed to separate all the tributary Garos (from whom, and from the independent villages beyond, the raids proceeded) from the zamindars' control, and take them under Government management, compensating the zamindars for any losses which they might show that they had sustained; to make the chiefs of the villages thus brought under our jurisdiction responsible for keeping the peace and for the collection of revenue; and to bring the submontane *hâts* under Government control, all duties being abolished there, except those levied upon the independent Garos frequenting them. These proposals were approved by Government, and were afterwards embodied in Regulation X of 1822, which gave Mr. Scott, who was appointed Special Commissioner, authority to extend British administration over other Garo communities which might be still independent, and exempted the whole tract (together with the district of Goalpara) from the operation of the General Regulations. After the passing of the Regulation, Mr. Scott proceeded to conclude engagements with the independent chiefs, and no fewer than a hundred and twenty-one of those living west of the Someswari are said to have entered into terms with him.

Affairs subsequent to Regulation X of 1822.

90. Mr. Scott was shortly afterwards called away from his work among the Garos to assume the administration of Assam and the Eastern Frontier generally, and his place was taken by the Principal Assistant of Goalpara, who was aided by a Garo, Sarbarahkar, with his headquarters at Singhimari, situated nearly opposite the middle of the western face of the hills. For many years the British Government maintained a policy of non-interference with the interior of the hills. The tributary Garos within paid with great irregularity the tribute which they had agreed upon. Raids were frequent, and were followed either by expeditions or by blockade of the submontane markets—measures which were found to be quite ineffectual to stop them. Some little influence was occasionally brought to bear upon the tributary Garos through visits paid to them by the Principal Assistant of Goalpara; but these annual tours were not regularly carried out, as designed by Mr. Scott, and any intermission in them was followed by an increase in the number of raids.

Establishment of a Deputy Commissioner within the hills.

91. During all these years it was believed that the climate of the hills was so deadly that no European could survive within them, and that it was impracticable to attempt any establishment of a permanent post in their midst. At last, in 1866, after two expeditions to punish raids on the side of Mymensingh of more than usual atrocity, the Government for the first time resolved to appoint a special officer to the charge of the hills. Lieutenant Williamson was selected for this purpose, and was established on a spur of the Tura mountain, with a special armed police force. Shortly after, in 1869, Act XXII of that year was passed, which enabled the Lieutenant-Governor to

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make special provision for the administration of the district, and to prevent the collection by zamindars or other persons of tribute, cesses, or other exactions in the hills. By this Act, Regulation X of 1822 was repealed. That Regulation had applied only to North-East Rangpur, afterwards the Goalpara district. The Act of 1869 included Mymensingh, on which side also zamindari influence had been pushed into the hills, and had provoked retaliation by the hillmen.

This experiment proved completely successful. The Deputy Commissioner of the Garo Hills and his police force brought almost instant quiet to the district. Hearty aid was given to him by the Garos, and the headmen, relieved from the dread of retaliatory feuds, at once began to perform their duty, to deliver up offenders, and to enforce the payment of revenue. Raids ceased, and numerous villages, till then independent, voluntarily became tributary.

Subjection of the last independent Garos.

92. In 1870 the survey, which had been carried through the neighbouring Khasi Hills, entered the district, and it was resolved to explore as much of the independent Garo country as was possible in the course of surveying the area that acknowledged British authority. During that year no opposition whatever was offered by the independent villages, of which about sixty still remained in the heart of the district; but in March 1871 a survey coolie, who had been sent to clear a station on the top of a hill, was seized by some Garos of Rongmagiri, and was tortured and murdered. This put a stop to survey operations for the time, and in the ensuing cold weather (1871-72) an expedition was led against the offending village. In the summer of 1872 some independent villages raided certain protected Garo villages which had afforded assistance to the expedition against Rongmagiri, and were attacked and occupied by the Deputy Commissioner. It was eventually resolved that the whole of the country which had hitherto been left to its independence should be brought under the same management as the rest; and in the cold weather of 1872-73 three detachments of police, from Mymensingh on the south, from Tura on the west, and from Goalpara on the north, marched through the country which it had been decided to annex. All resistance was easily overpowered, *lashkars* or headmen were appointed, the heads taken in recent raids were surrendered, and peaceful administration was established.

Recent history.

93. Since the expedition of 1872-73, the history of the district has been one of profound peace. In February and March 1881, a slight disturbance took place near Bangalkhata, at the north-western corner of the hills, in consequence of the construction of a road through that tract; but it was speedily suppressed without bloodshed. The whole of the district, with the exception of a small tract of plains land on the north, is now under the exclusive management of the Deputy Commissioner, and is free from the exactions of zamindars, the greater part of whose interests in the area formerly included in their zamindaris or tributary to them have been bought out and extinguished.

The Khasi Hills.

94. The Khasi Hills were first brought into direct relations with the British Government in 1826, after the conquest of Assam.* The chiefs of the Khasi States on the northern border of the hills had gradually, since the decay of the Ahom power in the year 1794, established themselves in the plains of Kamrup in the tracts known as Duars, and were accustomed to pay only a nominal allegiance to the Assam kings. When Assam was acquired by the East India Company, it became an object with Mr. Scott to establish communication through the hills with Sylhet, and, while the new administration of Kamrup refused to recognise the right of the Khasi rulers to encroach on the plains of Assam, Mr. Scott was able, by agreeing to allow Tirat Singh, Siem of Nongkhlao, to rent some lands in Borduar, to induce that chief, and to persuade the other Siems, to permit a road to be made through the hills *vid* Cherrapunji, Maoflang, and Nongkhlao to Gauhati.

In 1829, the insolent talk of some native servants belonging to the surveying party who were making the road led to an attack upon the party at the village of Nongkhlao, and Lieutenants Burlton and Bedingfield, with about fifty or sixty followers, were massacred. This event was followed by a general confederacy of most of the neighbouring chiefs to resist the British, and led to a long and harassing war, in which troops from Assam and Sylhet co-operated. Eventually, Tirat Singh submitted in 1833, and was confined as a prisoner for life in the Dacca Jail. The other chiefs had either before made terms with the British Government, or did so immediately after. A British officer with an adequate military force was posted to Cherrapunji, which was abandoned in 1866 for Shillong, and this sufficed to maintain tranquillity.

The greater part of the Khasi Hills consists of the territories of native chiefs in subsidiary alliance with the British Government. Only a few scattered villages have

* The Khasis had previously been known only as troublesome marauders upon the plains of Sylhet, where they were much dreaded. During the last century their ravages between 1780 and 1790 are specially mentioned as severe. A line of forts was kept up under the hills to check these incursions.

remained British since the conquest of 1833, or have been ceded since then under special circumstances. The people govern themselves through their elected rulers, who are bound to follow the advice of their *darbars*. They pay no revenue to the British Government, but, under sanads based upon agreements taken in 1858, which each Siem is required to confirm on investiture, they have ceded to the paramount power the mines and minerals, elephants, forests, and other natural products of their States, on the condition of receiving half the profits from these sources. All petty crime committed by their subjects is dealt with by the chiefs and their *darbars*, only heinous offences, or those cases in which subjects of different States are concerned, being tried by the district authorities. The people are extremely well-to-do, and make much money by trade with the plains in the valuable staples which the hills produce.

The Jaintia Hills.

95. It has already been related how, on the annexation of the plains country of Jaintia in 1835, Raja Rajendra Singh declined to retain the hilly portion of his principality, which thus lapsed to the British Government. This tract, inhabited by the same race of mountaineers as the neighbouring Khasi territory, was thereupon placed under the administration of the Political Agent at Cherrapunji. The Jaintia Hills were divided into twenty-three petty districts, nineteen of which are in charge of headmen, chosen by the people themselves, called *Dollois*, and the remaining four in that of Sardars. From 1835 to 1855 the people were left very much to themselves. The *Dollois* heard all civil cases, at first without exception, and after 1841 up to a certain limit, and all criminal complaints not of a heinous character in which only people of their own villages were concerned. No taxes of any kind were levied throughout the hills, the only contribution required being the annual offering of a he-goat from each village, which had been exacted by the Jaintia Raja. In 1853 Mr. Mills, of the Sadr Court, reported on the district and drew attention to the absence of administrative control in this portion of it. He suggested that a house-tax (which had been proposed by the Political Officer in 1849, and then negatived by Government) should be imposed, and that a police thana should be established in the hills with a view to check the lawless proceedings of the *Dollois*. The latter recommendation was carried out, and a thana was established at Jowai; but the former, though approved by Lord Dalhousie, remained without effect. In 1858, Mr. Allen, of the Board of Revenue, again reported on the district, and strongly urged the acceptance of Mr. Mills' recommendation that a moderate house-tax should be imposed. He urged, moreover, that a European civil officer should be stationed in the midst of the tract, to be to the people a visible representative of British authority. The latter of these proposals was neglected, the former was adopted. In 1860 the house-tax was imposed, and within a few months the people were in open rebellion. Fortunately, a large force of troops was close at hand, and, before the revolt could make any head, it was stamped out and the villages were awed into apparent submission. After this rising, measures were taken to improve the administration of the *Dollois*, who were notoriously corrupt, but still no officer was posted to the subdivision.

In January 1862, the people of the Jaintia Hills were again in fierce rebellion. The occasion was the imposition, only a year after the house-tax had been introduced, of the income-tax, to the payment of which three hundred and ten persons in the hills were subjected. This new impost, quickly succeeding the former, roused the deepest resentment among a people who had paid nothing for generations, either to their own Raja or to the British Government, and had been left since annexation entirely to themselves. The suppression of the revolt was long and tedious. Crushed apparently in four months after its outbreak, it again almost immediately burst out afresh; and it was not till November 1863 that the last of the rebel leaders surrendered, and the pacification of Jaintia could be said to be complete.

A Subdivisional Officer has since those events been stationed at Jowai. He is required to make himself acquainted with the Khasi language, and to be able to dispense with interpreters. The administration of the *Dollois* has been reformed, education (by the agency of the Welsh Mission established in the Khasi Hills since 1842) has been encouraged, and the country has been thoroughly opened up by roads. The Jaintia Hills are now as secure and peaceful as the neighbouring Khasi States.

North Cachar.

96. North Cachar, the tract of thinly-peopled, low undulating hills, divided from the valley of the Barak by the range of the Barail, and interposed between the Jaintia Hills and the Naga Hills, has already been briefly referred to in the section dealing with Cachar. When the district was under native rule, during the last years of the reign of Govind Chandra, this portion of it was the scene of a struggle between that prince and one of his officers, named Kacha Din,* who rebelled, and endeavoured to

* Called "Kohee Dan" by Colonel Butler,—Mills' "Assam Report," page clxii. "Kacha Din" is the name given by Pemberton,—"Eastern Frontier," page 191.

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establish an independent government in the hills. He was captured and put to death by Govind Chandra, but his son, Tularam, a *chaprasi* in the Raja's service, immediately revived the rebellion, and in 1824 joined the Burmese in their attack on Cachar. After a series of years, during which Tularam successfully held his own, Mr. Scott induced Govind Chandra in 1829 to assign to him a tract of country in the hills, and bind himself to respect these limits. After the assassination of the Raja of Cachar, Tularam was a candidate for the vacant throne, but failed to establish his title. In 1835, he entered into an agreement with the British Government, in which he resigned all the western portion of the tract ceded by Govind Chandra, retaining the tract on the east, bounded on the south by the Mahur river and the Naga Hills, on the west by the Dayang, on the east by the Dhansiri, and on the north by the Jamuna and Dayang. For this he was to pay a tribute of four pairs of elephants' tusks annually, receiving a monthly pension of Rs. 50. Tularam died in October 1850. His sons, Nakulram and Braja Nath, held the country for two and half years more, when the former was killed in the Naga Hills, whither he had led an expedition to avenge an attack on his village of Semkhor. In 1854 the tract was resumed by the British Government, the surviving members of Tularam's family receiving pensions.

In 1839, the portion of North Cachar not included in Tularam's dominions was annexed to Nowgong, and in 1853 a separate officer was placed in charge of the subdivision with his headquarters at Asalu, near the northern skirts of the Barail. It was his business to keep order among the Kukis and Kachcha Nagas dwelling in this neighbourhood, and to protect them against the Angami Nagas to the east, who were constantly making raids into this country and that held by Tularam. In 1854, this officer's charge was augmented by the addition of Tularam's principality.

The Naga Hills—Early history.

97. The defence of North Cachar and the Mikir Hills in Nowgong, lying to the north of that subdivision, from the attacks of the Angami Nagas, was a task which experience proved could not be successfully effected from Asalu. These turbulent neighbours led yearly expeditions into the hills and into the valleys of the Jamuna, Dayang, and Dhansiri rivers. Outposts throughout the hills held only the ground they covered, and the Nagas were able to creep by them with impunity. Ten military expeditions were led into the Naga Hills between 1835 and 1851, the greater number of which were to punish raids. In 1846, a police post, under Bhogchand Darogha, was established at Samaguting on a hill overlooking the Dhansiri Valley south of Dimapur. In 1849, Bhogchand was killed at Piphima in the hills by the men of Khonoma and Mezuma. In 1850, Lieutenant Vincent led a force to Mezuma to avenge Bhogchand's death, and remained there for six months, burning Khonoma during his stay. In the winter of 1850-51, the tenth expedition, with the strongest British force that had entered the hills, advanced to complete the work of punishment. On the 10th and 11th December 1850 the strong fort of Khonoma was taken in almost the same circumstances as those that attended its capture twenty-nine years later, in November 1879. Paplongmai was burnt, and the Nagas of Kekrima, who challenged our troops, lost three hundred killed in a hand-to-hand fight, which was long remembered in the hills.

After this successful expedition the Government of India decided upon a complete withdrawal from interference with the internal concerns of the Angami Nagas. The Governor General, Lord Dalhousie, wrote in his Minute of the 20th February 1851:—

> Hereafter we should confine ourselves to our own ground; protect it as it can and must be protected; not meddle the feuds or fights of these savages; encourage trade with them as long as they are peaceful towards us; and rigidly exclude them from all communication, either to sell what they have got or to buy what they want, if they should become turbulent or troublesome.
>
> These are the measures which are calculated to allay their natural fears of our aggression upon them, and to repel their aggression on our people. This will make them feel our power both to repel their attacks, and to exclude them from advantages they desire, far better, at less cost, and with more justice, than by annexing their country openly by a declaration, or virtually by a partial occupation.

In March 1851, our troops were withdrawn, and in that year twenty-two Naga raids were reported, in which fifty-five persons were killed, ten were wounded, and a hundred and thirteen were taken captive. In 1853, as already related, an officer was stationed in the North Cachar Hills at Asalu; but he was instructed to regard the Angamis as persons living beyond the jurisdiction of the British Government, and this although in 1841 the watershed of the Barail range to the south of the Angami country had been authoritatively laid down as the boundary of jurisdiction between Manipur and Assam. A line of outposts, with regular patrols, was established between Asalu and Barpathar, in the Nambor forest; but these outposts were reduced in 1857 and were gradually withdrawn.

Formation of the Naga Hills district.

98. Raids continued to be numerous between 1853 and 1865, during which years nineteen occurred, two hundred and thirty-two British subjects being killed, wounded,

or carried off. In 1864 and 1865 the policy to be followed towards the Angami Nagas again came under review, and the concurrent opinion of the local officers, the Commissioner, Colonel Hopkinson, and the Lieutenant-Governor, Sir Cecil Beadon, was that it was necessary for the credit of our administration to advance into the hills, "to re-assert our authority over the Nagas, and bring them under a system of administration suited to their circumstances, and gradually to reclaim them from habits of lawlessness to those of order and civilisation."

The Government of India, in 1866, agreed to the proposal that a new district should be formed, with its headquarters at Samaguting, Asalu being abolished as a subdivision, and North Cachar being divided between the Khasi and Jaintia Hills, South Cachar, and Nowgong, that portion lying to the west of the Dhansiri and the country on both banks of the Dayang forming, with the Angami Naga Hills, the new district. But they desired that the main object to be kept in view should be not to extend our rule into the interior, but to protect the low lands from the incursions of the Nagas.

Captain Gregory, the first officer in charge of the new district, was succeeded in 1869 by Captain J. Butler, whose energetic administration did much to consolidate our power in the hills. Acting in the spirit of his instructions, he received the allegiance of those villages which freely tendered it, but made no effort to include those who were not willing to become British subjects. Much of his time was given to exploration with survey parties, and in 1876 he met his death in a fight with the Lhota Nagas of Pangti, a village in the hills east of the Dayang river.

Advance to Kohima.

99. In February 1877, the Angami Nagas of Mezuma raided the Kachcha Naga village of Gumaigaju, in the heart of North Cachar, killing six and wounding two persons. The cause of the attack was a feud thirty years old. With this exception, no raid had been committed by Angami Nagas within British territory since 1866, although there were numerous complaints of their depredations in Manipur, and their internal feuds were incessant. The village of Mezuma refused to give up the raiders, and in the cold weather of 1877-78 an expedition was sent against it, and the village was burned. Mr. Carnegy, the Political Officer, was accidentally killed by a sentry of his own party while occupying Mezuma. These events led to a further review of the position which we occupied in the hills, and in 1878 it was determined by Colonel Keatinge, after a visit to the country, to abandon Samaguting, a low and unhealthy site on the extreme edge of the Angami country, and to fix the future headquarters of the Political Officer at Kohima in the midst of the group of powerful villages which it was specially necessary to control. This selection was approved by the Government of India in March 1878, and by the end of the next cold weather the transfer from Samaguting to Kohima was completed.

In the course of the rains of 1879, indications of coming trouble began to present themselves, but no serious apprehensions were entertained by the Political Officer, Mr. Damant, who had planned an expedition during the cold weather into the Hatigoria country to the east of the Dayang. Before starting on this, however, he resolved to visit the powerful villages of Jotsoma, Khonoma, and Mezuma, to ascertain their disposition, and to decide whether he might safely leave Kohima. On the 14th October he arrived at Khonoma, and leaving half his escort of twenty-one sepoys and sixty-five police with his baggage at the foot of the hill, he advanced with the other half up the narrow path leading to the strongly-fortified village site. The gate of the village was found closed, and as Mr. Damant stood before it, he was shot dead. A volley was then poured into his escort, who turned and fled down the hill. The Nagas followed, and dispersed the troops and police, who endeavoured by twos and threes to escape to Kohima. Of the military accompanying Mr. Damant, ten were killed and five were wounded. Of the police, twenty-five were killed and fourteen were wounded.

When this news reached Kohima, preparations were made to resist the attack. The Subdivisional Officer was summoned from Wokha, fifty-seven miles distant, and arrived with his force of sepoys and police on the 19th October. The stockade was besieged by the Nagas from the 16th to the 27th, when the garrison, who were reduced to great straits for want of food and water, were relieved, and the siege was raised, by the arrival of Colonel Johnstone, Political Agent of Manipur, with a force of 2,000 Manipuri troops, and his own escort of thirty sepoys and a few police.

A campaign against the Nagas then ensued, in which the 42nd and 44th Regiments, with a wing of the 18th Native Infantry, and a detachment of the 43rd Native Infantry, took part, and which lasted till March 1880. Khonoma was taken by storm on the 22nd November 1879, but the defenders retreated to a very strong position above the village on a spur of Japvo, where they maintained themselves until the end of the campaign. Jotsoma was captured on the 27th November, and every one of the thirteen

villages that had entered into the coalition against us was either occupied or destroyed. The most notable event of the war was the daring raid made in January 1880 by a party of Khonoma men from the fort above the village, which was at the time beleaguered by our troops, upon the tea garden of Baladhan in Cachar, more than eighty miles distant, where they killed the manager, Mr. Blyth, and sixteen coolies, plundered what they could, and burned everything in the place.

On the 27th March, the fort above Khonoma submitted, and the war was at an end. Fines in grain, cash, and labour were imposed upon those villages which took part against us. The Nagas were made to surrender the firearms they were known to possess, and in some instances the removal of a village from a fortified inaccessible crest to a site below was directed. Khonoma was razed to the ground, and its site occupied by an outpost. From all villages an agreement was taken to pay revenue in the shape of one maund of rice and one rupee per house, to provide a certain amount of labour annually for State purposes, and to appoint a headman who should be responsible for good order and for carrying out the wishes of Government.

After the close of this, the twelfth and last, expedition, the question of the policy to be adopted in dealing with the Nagas was submitted by the Chief Commissioner to the Government of India, who in February 1881 finally decided that our position at Kohima should be retained, that a regiment should be permanently stationed in the hills, and that the district should be administered as British territory. Since that date the history of the district has been one of the progressive establishment of peace and good order, and the quiet submission of the Nagas to our rule.

Wokha subdivision.

100. In 1875, a subdivision was opened at Wokha, which is situated in the country of the Lhota Nagas, who are separated from the Angamis by the Rengmas and Semas. The village of Wokha had on several occasions attacked survey parties sent into the hills, and it was determined to occupy the site to secure our position there. The Lhotas have no connection with the Angamis, who do not pass through their country in visiting the plains. This tract was placed in charge of a tahsildar in 1889, when the Mokokchang subdivision was formed, as the Lhotas had by that time become so amenable to authority that it was considered unnecessary any longer to retain a European officer in their midst.

Makokchang subdivision.

101. The Ao subdivision of the Naga Hills district with headquarters at Mokokchang was formed in 1889 because of the difficulty of protecting the Aos from raids by the trans-Dikhu tribes unless a garrison was permanently established in their midst. The leading Ao villages in fact petitioned for their incorporation in British territory. Shortly afterwards an area of political control was established, which included most of the Semas along the Tizu river and some of the eastern Angami villages. The inhabitants of this tract were not assessed to house-tax, and were not supposed to be regularly administered, the Deputy Commissioner touring through the area at frequent intervals, and dealing with serious cases which were brought to his notice. In 1903 the controlled area was regularly brought under administration, and its inhabitants were assessed to house-tax, while at the same time the eastern and southern boundaries of the district were somewhat extended. In 1910 a small area east of the Dikhu, which contained minerals, was added to the district.

In 1898 the detached portions of the Mikir and Rengma Hills, which formed the most northerly part of the Naga Hills district as originally constituted, with the level tract separating them from the Naga Hills Proper, were transferred to the districts of Nowgong and Sibsagar. The tract so transferred included the extensive Nambor forest. The difficulties of administering this area from Kohima had always been felt, and, once it was traversed by the Assam-Bengal Railway, administration from Sibsagar and Nowgong became a comparatively simple matter.

Re-establishment of the North Cachar subdivision.

102. At the close of the Angami expedition of 1879-80, Sir Steuart Bayley recommended, and the Government of India approved, the re-establishment of the subdivisional charge of North Cachar, where, since 1866, no officer had been located, the hillmen being left, save for the rare cold-weather tours of the Deputy Commissioner, entirely to themselves. The subdivision was opened in December 1880, and placed in charge of an Assistant Superintendent of Police, who was stationed at Gunjong, in the centre of the tract, a point connected by easy hill paths with Nowgong to the north, Silchar to the south, and Jowai to the west. A bridle path to Kohima, *vid* the Kachcha or Arung Naga country, was subsequently constructed. In this hitherto isolated and thinly-peopled region, in the cold weather of 1881-82, an event occurred which cost the life of a valued officer, Major Boyd, the Deputy Commissioner of Cachar. A Kachari, named Sambhudan, declared himself inspired, claimed to work miraculous cures, and with his followers, who like himself, took the title of *deo*, or god, levied contributions on the villagers about Maibong, the old capital of the Kachari kings, where

he took up his abode. The matter came under the notice of the Subdivisional Officer, who reported it, and the Deputy Commissioner, Major Boyd, immediately started for Gunjong with 30 police, and reached that place without impediment. On the 15th January he left Gunjong with Mr. Soppitt, the Subdivisional Officer, for Maibong, which is six or eight hours' march distant. Maibong was reached and found deserted, and the party encamped in the huts of the *deos*. On the same day, Sambhudan and his party, some 20 men, executed a countermarch, and about noon fell upon Gunjong, where only a weak police guard, composed mainly of Kachari constables, who shared in the superstitions of their people, had been left. The guard were panic-stricken, and fled without firing a shot, and the *deos* burned down all the houses at Gunjong, killed two servants and a sick policeman, and left precipitately for Maibong. On the morning of the 16th, soon after dawn, Major Boyd was awakened by the shouts and drums of Sambhudan and his followers, who had passed the night in the jungle. The police formed up in line with bayonets fixed, but did not fire at first. The enemy advanced right up to the police, and struck at them with their *daos*. One man was wounded on the shoulder with a *dao*, and Major Boyd received a deep cut between the forefinger and thumb. The police then fired a volley, and killed eight of their assailants, two or three more being afterwards found dead in the jungle. Sambhudan escaped for the time, but the insurrection completely collapsed at once. Major Boyd was carried into Silchar, where his wound brought on tetanus, from which he died on the 30th January 1882. Sambhudan evaded capture till the end of the year, when he was surrounded by the police, who had received information of his hiding place. In endeavouring to escape, he received a wound, from which he quickly bled to death. Four of his gang were arrested, of whom two died in jail, and two were tried at the sessions. One was acquitted, and the other was sentenced to transportation for life.

In 1896 a great change was effected in the material conditions of the subdivision by the construction of the railway through the hills. The work presented engineering difficulties of an exceptional character. The headquarters of the railway administration were fixed at Haflong on the summit of a hill round the foot of which the line runs in a loop, and the headquarters of the subdivision were transferred from Gunjong to this place in 1896.

The Lushai Hills.

103. From the earliest period of which we have any knowledge, the hills lying to the south of Manipur, Cachar, and eastern Sylhet have been inhabited by various tribes known to the Bengalis by the common name of Kukis. These tribes have always, so far as we know, been divided into numerous families, each family acknowledging a chief or ruling house, and these houses being generally engaged in warfare with one another. Each village had its chief, whose object it was to extend the fame and power of his village by fighting with his neighbours, and whose leadership gave the Kukis distinct advantage over the democratic villages of the surrounding Nagas. During the weak rule of the last Rajas of Cachar, the valleys in the south of that district were almost depopulated by attacks from these hillmen, and at the same time the district began to be invaded by bodies of Kuki refugees, who had been driven out of their own country by more powerful chiefs, and sought protection from the rulers of Cachar. Many of these communities settled across the Barail in North Cachar, where they were comparatively safe from pursuit. Those who settled in the southern hills were often followed up by their conquerors and massacred. The older immigrants of this period (none of whom probably date from before the beginning of the present century) are known to the Cacharis as "old Kukis," those who have immigrated since British rule began being called the "new Kukis." Govind Chandra is said to have employed Kukis in his contest with Tularam Senapati, and this no doubt increased their numbers in North Cachar.

The Kuki families whose feuds first attracted most attention, and from whose raids we suffered during the first years of British rule, were the Tlangams, Changsels, Thadois, and Poitus. The Lushais were not heard of until about 1840, when they made their appearance on the Chattachura range, from which they were driving the Poitus. Their chiefs are said all to be descendants of Chunglunga, whose successor, Lalluia, had four sons,—Lalpuilena, Lalienvunga, Mangpor, and Vuta. The descendants of the first mentioned are the Eastern chiefs, of whom Lengkam, Lalbura, and Poiboi were names of note in our relations with the Lushais. Of the descendants of Lalienvunga, Lalhai may be mentioned; of Vuta-Laleya and of Mangpor-Lenkhunga, Khalkam, Lengpunga, Thanruma, Lalrima, and Thangula, all of whom, with the exception of the last mentioned, were sons or grandsons of Sukpilal, who died in 1880, and who at the time of his death was ruler over the whole of the Western Lushais.

The first attacks upon British territory made by the Lushais after their advance northwards were in November 1849, when almost at the same time a party of

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wood-cutters was massacred, a village of Tipperas was burnt and another was plundered in the Singla valley in Sylhet, west of the Chattachura range, and an attack was made by Mora, son of Lalienvunga, on three villages of refugee Thadoi Kukis within ten miles of the station of Silchar. To punish these outrages, the first expedition was led against the Lushais by Colonel Lister, who in January 1850 surprised and destroyed Mora's village, situated a little way south of the great peak of Nisapwi, between the Dhaleswari and the Sonai rivers. This expedition secured peace for many years. The Lushais gradually withdrew their advanced posts southwards and we ceased to have much communication with, or information about, them. A raid was committed in 1862 on Hill Tippera and South Sylhet near Adampur. This, two years later, was discovered to have been perpetrated by Sukpilal; but only negotiations followed. A meeting was held between the Deputy Commissioner of Cachar and Sukpilal's agents, and it was arranged that the captives taken should be surrendered, and that Sukpilal should receive an allowance for keeping the peace of the frontier. A similar arrangement was made with Vonpilal, son of Mora. But, although four of the captives were surrendered, these arrangements were never actually carried much further. In November 1868 the Eastern Lushais began a series of attacks on Manipur. In December of the same year Sukpilal carried his feuds with the Poitus into Sylhet. In January 1869, the tea garden of Noarband in Cachar was plundered and burned, several coolies being killed by Lalruma, son of Lalpunga and brother of Poiboi. On the 14th January, Dantau, son of Vonolel and brother of Lengkam and Lalbura, attacked the garden of Monierkhal, which he burned and plundered. In February a combined attack was made upon the Kala-Naga stockade in Manipur. It was determined to punish these outrages by an expedition, one portion of which was to go up the Dhaleswari river to attack Sukpilal, and another up the Sonai, while a Manipuri force was to march south and join the second. The season, however, was too late for effective measures, and the expedition was practically a failure. Emboldened by this result, a new series of attacks was planned by the Lushais in the cold weather of 1870-71. A new family now appeared on the scene. The Eastern Lushais of the family of Vonolel (Lalbura and Lengkam, his sons, and his nephew Thonlong) led an attack on the Monierkhal stockade, the Bengali village of Nagdirgram, and the Nagas in Manipur, while the Howlongs of Lalpitang's house, who dwelt south of Sukpilal's Lushais, and the western Poitu Kukis raided down the Hailakandi valley, and attacked the tea garden of Alexandrapur, where they killed a number of coolies and the Manager, Mr. Winchester, and carried off his daughter and several other captives, besides much plunder. A subsequent attack on a neighbouring garden, Katlacherra, was repulsed. Upon this, it was determined to send a thoroughly effective expedition to march through the hills and exact reparation. Two columns were despatched in the cold weather of 1871-72, one from the Chittagong side, which marched northwards through the country of the Sylus and Howlongs and recovered the captives taken from Alexandrapur; and the other, *viâ* Tipaimukh, southwards into the country of Vonolel and his sons. This expedition was completely successful in procuring the submission of the chiefs, and satisfaction for the outrages; and from its termination no raid has been made on territory under the Assam Administration.

In 1889, however, a raid was made in the Chengri valley on the Chittagong frontier, and a number of captives were taken, whom the chiefs concerned (Lengpunga and his brother Zarok) declined to release. An expedition was accordingly undertaken in the cold weather of 1889-90. The main column marched through the Lushai Hills from Chittagong, and were met by a detachment of four hundred Military Police from Silchar. The captives were surrendered, but Lengpunga escaped for the time. His village was burnt, and the troops then left the country. Previous to this raid, the policy of Government since 1872 had been to maintain a line of outposts connected by patrol paths, and, while cultivating, as much as possible, friendly intercourse with the chiefs, to abstain from interfering in their internal affairs. It was now decided to endeavour to put down raids once for all by proving our power to occupy their country and by establishing military outposts in their midst. Two such outposts (at Aijal and Changsil) with a garrison of Military Police were established in the portion of the Lushai Hills bordering on the Cachar district, and Captain Browne was deputed thither as Political Officer. For a time, the Lushais appeared to have accepted the situation, and amongst other proofs of friendship, the leading chiefs attended a darbar held by Captain Browne, and killed a metna and swore an oath of friendship to the British Government. But the hopes thus raised were soon dissipated. Suddenly, without a word of warning, they rose in a body, attacked simultaneously the stockades at Aijal and Changsil, and killed Captain Browne, who was marching from Sairang to Changsil with a small escort of four sepoys. This was on the 10th September 1890.

Three days later a relieving force of two hundred Military Police left Silchar under Lieutenants Swinton and Tytler. Lieutenant Swinton was killed on the passage up the river Dhaleswari, whereupon Lieutenant Tytler assumed command, and reached Changsil and relieved the garrison under Lieutenant Cole, on the 28th September. The force at Changsil was further augmented by a detachment of two hundred men of the 40th Bengal Infantry under Lieutenant Watson, who arrived at Changsil on the 30th. Mr. McCabe, who had been deputed to Cachar on special duty, reached Changsil on the 5th October 1890, and on his arrival offensive operations were at once opened, with such success that within two months all but one of the Western Lushai chiefs had been arrested. The three ringleaders, Khalkam, Lengpunga, and Thangula, were deported, and the others were released on payment of the fines imposed on them. A few months later Khalkam and Lengpunga put an end to their existence by hanging themselves with ropes, which they had surreptitiously manufactured from their clothes.

These operations resulted in the complete pacification of the Northern Lushai villages west of the Sonai river, and the unconditional surrender of all the chiefs implicated in the rising, with the exception of Thanruma, who fled for refuge towards the east. At the beginning of 1891, the Lushais were peacefully employed in *jhuming* and in rebuilding their villages, many of which had been destroyed by our troops as a punishment. The feeling of insecurity which our operations had occasioned was beginning to wear off, and Lushais came readily to trade at the newly re-opened bazar at Changsil and to barter vegetables and live-stock with the garrison of Fort Aijal. Requisitions for the supply of coolies to work on roads and carry stores and baggage, etc., were promptly complied with by all the chiefs so requisitioned except Lalbura, and in consequence of his non-compliance, Mr. McCabe, with an escort of a hundred Military Police under Lieutenant Tytler, marched to his village, where he halted for the night. Next day, as Lalbura refused to come in, Mr. McCabe commenced collecting supplies and making other arrangements for halting in the village. Shortly afterwards three hundred armed Lushais were observed advancing towards the north crest of the hill commanding the camp. The Political Officer promptly ordered them to be fired on, and at once began to make dispositions for the defence of the camp. Before they could be completed, however, the Lushais attacked the camp from all directions, and set fire to the village. They were driven off, and the fortification of the camp was then proceeded with. Stores of paddy were collected from the jungle, where they had been hidden by the Lushais; a bridle path from Aijal to the Sonai was pushed on with great rapidity; and a reinforcement of a hundred Military Police was at once sent to Mr. McCabe's assistance from Aijal. The fact was recognised that it would be impossible to undertake punitive measures in a satisfactory way with the small force then available, and it was therefore decided to bring up three hundred men of the 18th Bengal Infantry from Silchar to hold Aijal and Changsil, and thus enable the whole of the Military Police stationed at those places to join the force with Mr. McCabe. In the meantime, skirmishing parties were sent out daily to disperse the Lushais in the neighbourhood of the camp and to search for further stores of paddy. The Lushais soon found that it was hopeless to try to take the camp, and confined themselves to ambuscading small parties.

Enquiries showed that Lalbura was assisted in his rising by all the Lushais east of the Sonai, and also probably by the Howlongs; but that the Western Lushais had profited by the lesson taught them in the preceding year, and had stood aloof. The attack at Lalbura's village took place on 1st March 1892. On the 10th April, the punitive force, consisting of two hundred and twenty-five men of the Military Police and seventy-five of the 18th Bengal Infantry under Captain Loch, left Aijal. Lalruya, Poiboi, Lalhai, Bungteya, Maite and other villages were occupied in turn, and all the chiefs submitted, except Lalbura, who fled, accompanied by only twenty followers, to the impenetrable jungles on the Manipur frontier. These operations were followed by the complete submission of the Eastern Lushais.

During the cold weather of 1892-93 a column from Aijal under Mr. Davis co-operated with a column from Lungleh to complete the punishment of the Howlong villages. No opposition was offered, and the two columns met at Kairuma's village. This chief complied with the demands then made upon him, but was subsequently recalcitrant, and it was necessary to make a military demonstration in his sphere of influence in the cold weather of 1895-96, before he would consent to pay up a fine which had been imposed upon him by the Political Officer for disobedience of orders.

In the course of the operations against the Eastern Lushais in 1892, the inconvenience resulting from the division of control over the Lushai country among the three Administrations of Assam, Bengal, and Burma had been found to be

considerable, and after a lengthy discussion it was finally decided to transfer the Southern Lushai Hills, which had been previously controlled from Bengal, to Assam. The transfer was not actually effected till the 1st April 1898, when the North and South Lushai Hills were amalgamated as a district of the Assam Province, and placed in charge of an officer who is styled the Superintendent of the Lushai Hills. At the same time rules were framed, introducing a suitable and simple system of administration, in which the internal management of the Lushai villages is left to the chiefs, subject to the general control of the Superintendent and his Assistants, in whom the administration of civil and criminal justice is vested. Since the formation of the district, satisfactory progress has been made in the development of communications and the civilisation and pacification of the Lushais.

Formation of the Chief Commissionership.

104. By a proclamation dated the 6th February 1874, the districts of Goalpara, Kamrup, Darrang, Nowgong, Sibsagar, Lakhimpur, the Khasi and Jaintia Hills, the Naga Hills, the Garo Hills, and the district of Cachar were separated from the administration of the Government of Bengal, and taken under the immediate authority and management of the Governor General in Council. By a notification of the same date they were formed into a Chief Commissionership, Lieutenant-Colonel R. H. Keatinge, V.C., C.S.I., being appointed the first Chief Commissioner. On the 12th September of the same year by another proclamation and notification Sylhet was incorporated with the province, and the only extensions of territory that have since taken place have been in the Naga and Lushai Hills. The territory included in the Mokokchang subdivision was annexed to the former district in 1889. As narrated in the preceding paragraph, the Northern Lushais were gradually brought under the control of the Assam Administration, and the South Lushai Hills were formally transferred from Bengal to Assam in 1898, when the Lushai Hills district was constituted and added to the province.

On the 16th of October 1905 the province of Eastern Bengal and Assam was formed by adding to Assam the Dacca, Rajshahi and Chittagong divisions. The Chief Commissioner, Sir Bampfylde Fuller, was appointed the first Lieutenant-Governor of the new province, and held office until the 19th August 1906. He was succeeded by Sir Lancelot Hare, who was again succeeded, on the 23rd August 1911, by Sir Charles Bayley. In accordance with the proclamation made by His Imperial Majesty at Delhi on the 12th December 1911 Assam again became a separate province with effect from the 1st April 1912.

The following statement shows the officers who have filled the post of Chief Commissioner since the formation of the Chief Commissionership :—

Name.	From	To	Remarks.
1	2	3	4
Colonel R. H. Keatinge, V.C., C.S.I. ...	7th February 1874 ...	21st June 1878.	
Sir S. C. Bayley, K.C.S.I. ...	22nd June 1878 ...	1st March 1881.	
Mr. C. A. Elliott, C.S.I.	2nd March 1881 ...	7th July 1883.	
Mr. W. E. Ward	7th July 1883 ...	7th October 1883 ...	Officiating.
Mr. C. A. Elliott, C.S.I. ...	7th October 1883 ...	23rd February 1885.	
Mr. W. E. Ward	23rd February 1885...	31st October 1887 ...	Officiating.
Mr. D. Fitzpatrick, C.S.I. ...	31st October 1887 ...	15th July 1889.	
Mr. J. Westland, C.S.I.	15th July 1889 ...	22nd October 1889.	
Mr. J. W. Quinton, C.S.I. ...	22nd October 1889 ...	24th March 1891.	
Brigadier-General Sir H. Collett, K.C.B.	24th March 1891 ...	27th May 1891 ...	Officiating.
Mr. W. E. Ward, C.S.I. ...	27th May 1891 ...	15th July 1894.	
Mr. C. J. Lyall, C.S.I. ...	17th July 1894 ...	4th October 1894 ...	Officiating.
Mr. W. E. Ward, C.S.I. ...	4th October 1894 ...	27th November 1896.	
Mr. H. J. S. Cotton, C.S.I. ...	27th November 1896	1st May 1900.	
Mr. J. B. Fuller, C.I.E. ...	1st May 1900 ...	1st August 1900 ...	Officiating.
The Hon'ble Mr. H. J. S. Cotton, C.S.I.	1st August 1900 ...	29th April 1902.	
The Hon'ble Mr. J. B. Fuller, C.S.I., C.I.E.	29th April 1902 ...	16th October 1905 ...	Officiating till 29th October, when he was confirmed.
The Hon'ble Sir Archdale Earle, K.C.I.E.	1st April 1912 ...	...	

SECTION 3.—Form of Administration.

General administrative system and staff.

105. The province of Assam is administered by a Chief Commissioner on behalf of the Governor General of India in Council. His Legislative Council consists of 24 members, of whom 11 are elected by various electorates, while 13 are nominated.

His general executive staff consists of (1) members of the Assam Commission, (2) members of the Provincial Civil Service, and (3) members of the Subordinate Civil Service.

The following are the cadre posts reserved for members of the Commission :—

Administration	Chief Commissioner		
	Chief Secretary to the Chief Commissioner ...		
	Second Secretary to the Chief Commissioner ...		7
	Two Assistant Commissioners as Under-Secretaries ...		
	Commissioners of the Assam Valley Districts and the Surma Valley and Hill Districts.		
Deputy Commissioners (Heads of districts)			12
Assistant Commissioners			21
General ...	Inspector-General of Police		
	Commissioner of Excise, Inspector-General of Registration and Registrar of Co-operative Societies.		5
	Settlement Officer		
	Director of Land Records and Agriculture... ...		
	Political Agent in Manipur		
	Total		45

The number of appointments sanctioned to fill these posts is 48 (a reserve of 3 being allowed for posts under the Government of India and for deputations). The Assam cadre is a purely executive one.

The District and Sessions Judge of the Assam Valley Districts, and the District and Sessions Judge and the Additional District and Sessions Judge of Sylhet are officers of the Bengal cadre, whose services are lent by that Government.

The sanctioned strength of the Provincial Civil Service comprises 60 Extra Assistant Commissioners, who are appointed in accordance with rules framed by the Local Administration.

The Subordinate Civil Service is composed of 61 Sub-Deputy Collectors, distributed in five grades. The Sub-Deputy Collectors are recruited from among natives of the province, who fulfil a certain educational standard. These officers are chiefly employed on duties connected with the land revenue administration.

Powers of the Chief Commissioner.

On the first constitution of the province, Act VIII of 1874 was passed to provide for the exercise by the Chief Commissioner of executive powers. In September of the same year, on the addition of the district of Sylhet to the Chief Commissionership, Act XII of that year made the same provision in regard to that district. By these Acts, the powers which, on the date of the formation of the Chief Commissionership, and on that of the transfer to it of the district of Sylhet, were by virtue of any law or regulation vested in, or exercisable by, the Lieutenant-Governor of Bengal or the Board of Revenue, Lower Provinces, were transferred to, and vested in, the Governor General in Council ; and it was enacted that the Governor General in Council might from time to time delegate to the Chief Commissioner all or any of the said powers, and withdraw any powers so delegated.

By notification dated the 16th April 1874, the Government of India delegated to the Chief Commissioner all powers vested in the Lieutenant-Governor of Bengal by the direct operation of any Act of the Governor General in Council, which also conferred the same powers on the Chief Commissioners of Oudh, the Central Provinces, and British Burma. By section 2, clause 10, Act I of 1868, all powers conferred upon a Local Government by any Act of the Governor General in Council in force in Assam, and passed subsequently to the constitution of the Chief Commissionership, vest in the Chief Commissioner. By the operation of this clause and the

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notification of the 16th April (and, in regard to Sylhet, a similar notification of the 12th September 1874) the Chief Commissioner has, in respect to all the general Acts of the Governor General in Council, the powers of a Local Government.

Other powers have, from time to time, been delegated to the Chief Commissioner under Acts VIII and XII of 1874 [or assumed under section 6(*c*) of Act XIV of the same year], and these, generally speaking, place him in the position of a Local Government in regard to most of the Regulations and Acts, whether of the Legislative Council of India or that of Bengal, in practical operation in the province.

General executive staff.

106. From the constitution of the province in 1874 down to 1880 there were no Commissioners in Assam. In June 1880 the Judge of the Assam Valley Districts was invested generally with the powers of a Commissioner of a Division in Bengal.

It was subsequently found necessary to relieve the Commissioner of his judicial functions, and in 1902 the separate appointment of Judge of the Assam Valley Districts was created. In October 1905 a second Commissionership was created for the Surma Valley and Hill Districts Division. This includes the districts of Sylhet and Cachar, and all the hill districts except the Garo Hills district, which was included within the jurisdiction of the Commissioner of the Assam Valley Districts from the 1st September 1909.

Judicial staff.

107. The six districts of the Brahmaputra Valley, and the districts of Sylhet and Cachar, are subordinate to the High Court of Fort William in Bengal. For the whole of the Brahmaputsa Valley there is one District and Sessions Judge, whose headquarters are at Gauhati, but who holds sessions at the various district headquarters. The Deputy Commissioners of the six districts have the civil powers of Subordinate Judges, and the Assistant and Extra Assistant Commissioners have the ordinary powers of Magistrates of the first, second, and third classes. In the Brahmaputra Valley the powers of a Munsif are exercised by one or more of these officers at each district and subdivisional headquarters.

In the Surma Valley a different system prevails. In Sylhet there is a separate judicial service, at the head of which is the District and Sessions Judge, aided by an Additional District and Sessions Judge and two Subordinate Judges and a staff of Munsifs for the disposal of civil cases. The Deputy Commissioner, the Assistant Commissioners, and the Extra Assistant Commissioners have here no civil powers, and exercise only the ordinary magisterial powers in criminal matters. In Cachar the District and Sessions Judge is the Judge of Sylhet, who holds sessions at Silchar when necessary; but as regards cases from the North Cachar Subdivision the Deputy Commissioner has the special criminal powers mentioned in sections 30 and 34 of the Criminal Procedure Code. The Deputy Commissioner has the civil powers of a Subordinate Judge. The Additional Subordinate Judge of Sylhet visits the district of Cachar periodically, and hears most of the appeals from the decisions of the Extra Assistant Commissioners who exercise the powers of a Munsif, as well as all the more intricate civil suits. The Assistant and Extra Assistant Commissioners exercise the powers of Munsifs in addition to their functions as Magistrates and executive officers.

In the hill districts and certain frontier tracts (the North Cachar subdivision, the Mikir Hills tract in Nowgong, and the Dibrugarh frontier tract in Lakhimpur), the High Court possesses no jurisdiction except over European British subjects. The hill districts were formerly under the operation of the deregulationizing Act, XXII of 1869, which was repealed by the Scheduled Districts Act, XIV of 1874. Subsequently, the Frontier Tracts Regulation, II of 1880, was passed, under which power is given to the Chief Commissioner, with the previous sanction of the Governor General in Council, to direct that any enactment in force in any frontier tract shall cease to be in force therein, and this Regulation (with the additional power of extension conferred by Regulation III of 1884) has been brought into force in all the hill districts and frontier tracts referred to above. Under its provisions, the operation of the enactments relating to Civil and Criminal Procedure, Court-fees, Stamps, Transfer of Property, and Registration, has been barred,* and a simpler system of administering justice in civil and criminal matters has been prescribed by rules framed under section 6 of the Scheduled Districts Acts, XIV of 1874. By these rules the Chief Commissioner is himself the chief appellate authority in civil and criminal cases. The Deputy Commissioner exercises the combined powers of District and Sessions Judge and Magistrate of a district, and the Assistant Commissioners and Extra Assistant Commissioners the powers of Magistrates and Munsifs. The judicial administration

* Except in cases when such enactments never were in force. The Civil Procedure Code, for instance, was never extended to the hill districts, and it was, therefore, unnecessary to include this in the declarations under Regulation II of 1880, which were issued in regard to these districts.

in all petty civil and criminal cases is usually carried on by village tribunals, presided over by headmen chosen from among the people themselves, whose procedure is completely free from legal technicalities, and whose proceedings are not reduced to writing. The Criminal Procedure Code is in force in the Eastern Duars in Goalpara, and that tract is, therefore, on the same footing as the plains district, so far as the administration of criminal justice is concerned. The Civil Procedure Code, however, is not in force. Its place is taken by rules under section 6 of Act XIV of 1874, which contain much the same provisions as the corresponding rules framed for the tracts that are under the operation of Regulation II of 1880.

Besides the judicial officer named above, there are a few Honorary Magistrates in nearly every district.

Revenue administration.

108. Up to the year 1886, Sylhet Proper was under the operation of the old Bengal Regulations and the other land revenue enactments in force in Bengal. In Jaintia and Cachar, and also, though to a less extent, in Goalpara, these enactments were generally followed, but they were not treated as actually in force. In the Brahmaputra Valley Proper, the settlement rules of the Board of Revenue had been replaced by local rules, which were revised and recast in 1883. In other respects the revenue law of Bengal was followed, so far as the local officers considered it to be applicable, but it was not treated as legally in force. All doubt and uncertainty were, however, removed by the enactment of the Assam Land and Revenue Regulation, I of 1886, which has been brought into force in all plains districts of the province. It contains all the necessary provisions of the revenue law of Bengal, the whole of which it repeals, so far as Assam is concerned. The Regulation was amended in some respects as regards the recovery of arrears of revenue by Regulation II of 1889, and its provisions regarding settlements, mutations, partitions, the recovery of arrears, etc., have been supplemented by rules issued under it and deriving from it the force of law. The superior authorities entrusted with the revenue administration have already been stated. They are the Chief Commissioner (as Local Government and Board of Revenue), the Commissioners of the Assam Valley Districts Division and the Surma Valley and Hill Districts Division, the Deputy Commissioner in each district, and the Assistant and Extra Assistant Commissioners. Below these there are different subordinate officers in different districts. Each subdivision in the plains districts, except Goalpara, has a Sub-Deputy Collector, who is employed mainly upon supervision of the revenue establishments, upon surveying waste and cultivated lands (the extent and importance of this work in Assam will be seen from the following chapter), and the compilation of the revenue records and returns.

Goalpara is, for all practical purposes, a permanently-settled tract, and there are no *mufassil* revenue establishments except in the Eastern Duars; in the other districts of the Brahmaputra Valley the whole of the revenue is collected by contractors, called *mauzadars*, holding charge of the revenue assessment and collection within definite areas, called *mauzas*, into which these districts are divided. On the conclusion of the annual assessment (which will be described in a subsequent section), the *mauzadar* entered into a contract to pay into the treasury the revenue assessed, together with any additional revenue which might be assessed on lands subsequently taken up within the year for cold weather cultivation, irrespective of whether he succeeded in realising the full amount from the cultivators or not, and is remunerated by a commission calculated at 10 per cent. on the first Rs. 6,000 of the revenue and 5 per cent. on any amount above that sum.

At each subdivisional headquarters in Sylhet there is a collecting office, where the revenue is paid in and the accounts are made up. There are also *mufassil* collecting officers in certain temporarily-settled tracts, *viz.*, at Gowainghat and Kanairghat in Jaintia, Patharkandi, and at Hakaluki in Karimganj. Proceedings for the realisation of arrears (which are here generally recovered by means of a Sale Law) are taken at the subdivisions.

In the plains portion of Cachar also there are three collecting or *tahsil* establishments for receipt of the revenue. Two of these are located at the sadr and subdivisional headquarters, and the third at Katigora close to the Sylhet boundary.

In the hill districts, the general rule is that house-tax, and not land revenue, properly so called, is paid; but in the Garo Hills and a small area in the Jaintia and Naga Hills, there are tracts where land revenue is taken, and *mauzadars* are the agency employed for collection. The house-tax is, in the Garo, Jaintia, Naga Hills, and North Cachar and the few villages in the Khasi Hills which are British territory, collected and paid in by headmen, who, like the *mauzadars* of the Assam Valley, are remunerated by a commission. These officers are called *laskars* and *lakmas* in the

Garo Hills, *dollais* and *sardars* in the Jaintia and Khasi Hills, *lambardars* in the Naga Hills, and *mauzadars* in North Cachar. In the Lushai Hills, the house-tax is collected and paid in by the village chiefs.

Land Records and Agriculture.

109. The Director of the Department of Land Records and Agriculture is a member of the Commission of the standing of Deputy Commissioner. His main duty is to supervise all survey and settlement operations, but he is also entrusted with the collection of trade and agricultural statistics, the management of survey schools, and other similar matters.

Police.

110. The Inspector-General of Police is a senior member of the Assam Commission of the standing of Deputy Commissioner. He has a Personal Assistant, who is on the graded list of Superintendents of Police. There are two distinct forces under the control of the Inspector-General. The Civil Police are entrusted with the maintenance of law and order and the prevention and detection of crime. The Military Police supply the garrisons for frontier outposts, and for the control of the Garo Hills, the Naga Hills, and the Lushai Hills. Both forces are subject to Act V of 1861, but for the Military Police there is in addition a special Regulation (the Assam Military Police Regulation No. IV of 1890, superseded in 1913 by Act III of the Eastern Bengal and Assam Council), which provides for the enforcement of due discipline, and assimilates generally the terms of service to those prevailing in the Indian Army. There are three battalions of Military Police :—

(1) The Lakhimpur Battalion, with headquarters at Dibrugarh ; (2) The Naga Hills Battalion, with headquarters at Kohima ; and (3) the Lushai Hills Battalion, with headquarters at Aijal. At Silchar in Cachar and at Tura in the Garo Hills there are detachments which formerly belonged to the Dacca Battalion, but have since been transferred to Assam.

At the close of the year 1911, the sanctioned strength of the Civil Police was 3,223 officers and men, and that of the Military Police 2,519 officers and men. The Civil Police in each of the plains districts are in charge of a Superintendent, an Assistant Superintendent, or a Deputy Superintendent of Police. The Battalions of Military Police are commanded by military officers, whose services are temporarily lent.

There is a force of chaukidars or rural police in the districts of Sylhet, Cachar and Goalpara. All chaukidars are enlisted under Act VI (B. C.) of 1870. Their number in 1911 was 6,611, of whom 5,079 belonged to Sylhet, 580 to Cachar and 952 to Goalpara. The cost of this force for the year was Rs. 3,30,227, the whole amount of which was realised from the villagers.

In the districts of the Brahmaputra Valley other than Goalpara, where there are no rural police, mauzadars and mandals are required to give information of the commission of crime and to aid in detection, and in each village or group of hamlets there is a *gaonbura* or village headman, who is the recognised representative of the villagers in police matters.

Jails.

111. All headquarters stations except Tura have District Jails, and of these the most important are at Gauhati, Tezpur and Sylhet. There are subsidiary jails at the headquarters of all subdivisions in the plains except Hailakandi, Goalpara and Barpeta, where, as in the case of subdivisions in the hills, there are lock-ups only.

As a general rule, the Civil Medical Officer of the district is the Superintendent of the District Jail, but the jails at Dhubri, Kohima and Aijal are under the superintendence of the administrative officers of the district.

The Jail law of the province is Act IX of 1894, which was brought into force in supersession of Act XXVI of 1870. The Assam Jail Manual of 1899, consisting of rules and orders issued by the Local Administration and the Inspector-General of Prisons, has superseded the Bengal Jail Rules which were formerly in force in Assam.

Registration.

112. The Commissioner of Excise is also Inspector-General of Registration, and he holds besides the offices of Registrar of Joint Stock Companies under the Companies Act, Registrar General of Births, Deaths, and Marriages under Act VI of 1886, Registrar of Co-operative Societies, Registrar of Provident Insurance Societies and Life Assurance Companies, and Superintendent of Stamps. All Deputy Commissioners are Registrars in their respective districts. In the Brahmaputra Valley and the Hill Districts the Sub-Registrars at district and subdivisional headquarters are Extra Assistant Commissioners who do this work in addition to their other duties. In the Surma Valley there are salaried Sub-Registrars and there are Special Sub-Registars at Sylhet and Silehar.

Excise.

113. Excise was, up to the close of the year under review, managed under the excise laws of Bengal, which had been extended to Assam. The Eastern Bengal and Assam Excise Act has been brought into effect from the 1st April 1912. The Excise Department was under the control of the Commissioner of Excise.

Education Department.

114. The Education Department is managed by a Director of Public Instruction. He is assisted by 2 Inspectors, 1 Inspectress, 1 Assistant Inspector, 20 Deputy Inspectors and 23 Sub-Inspectors of Schools.

Forest Department.

For administrative purposes the forest charges compose two circles, the Eastern and Western, each of which is under the control of a Conservator assisted by a staff of Deputy, Assistant, Extra Deputy, and Extra Assistant Conservators.

Public Works Department.

The staff of direction of the Public Works Department in Assam consists of Chief Engineer, who is also Secretary to the Chief Commissioner in that Department aided by an Under-Secretary. There is also a Superintending Engineer who is in charge of five Divisions. Two Divisions are under the direct control of the Chief Engineer.

The Executive staff consists of fourteen Executive and Assistant Engineers and two temporary Engineers. The Public Works in the Lushai Hills are in charge of the Superintendent of these Hills, who is assisted by an Upper Subordinate seconded from the regular cadre of the Public Works Department.

Medical and sanitary establishment.

115. The medical institutions of the province are supervised by the Inspector-General of Civil Hospitals, who is also the Sanitary Commissioner of the province, and is the Chief Commissioner's adviser on sanitary and medical matters generally. The civil medical staff comprises nine Civil Surgeons belonging to the Indian Medical Service, each of whom, when on duty, holds charge of a district. The remaining districts are in charge of Medical Officers, who are usually either Military or Civil Assistant Surgeons. The Civil Surgeon at Sylhet is in charge of the Leper Asylum there, and the Civil Surgeon of Tezpur is also Superintendent of the only Lunatic Asylum in the province, which receives insane persons from the Assam Valley and the hill districts. Lunatics from the Surma Valley have hitherto been sent to the asylum at Dacca. But it is now proposed to receive them into the Tezpur Asylum from 1st April 1913. The Civil Surgeon of Dibrugarh is Superintendent of the Berry-White Medical School.

Imperial departments in the province.

116. The civil accounts of the province are in charge of a Comptroller, who is directly subordinate to the Financial Department of the Government of India. The Post Office Department is in charge of a Postmaster General, and the Telegraph Department in that of a Director. These officers are not subordinate to the Chief Commissioner.

Local Self-Government.

117. Besides the agency of Government officers, much assistance is given to the administration of the province by local bodies who administer funds raised under special enactments or placed at their disposal by the Chief Commissioner. These are either municipalities for town areas, or Local Boards for the district at large.

Municipalities.

118. There are eleven municipalities in the province, of which eight are constituted under Act III (B. C) of 1884, and the remainder under Act V (B. C.) of 1876. In addition to these, there are one Station and four Unions formed under Act V (B. C.) of 1876. In the Municipalities of Sylhet, Goalpara, Dhubri, Gauhati, Tezpur and Dibrugarh the elective system is in full force, and a system of election has also been introduced, at the instance of the ratepayers, for the choice of members to sit on the Committee at Silchar. The official members of all municipal committees are very few in number; and although the Chairmen are officials in all cases except that of the Sylhet Municipality, the Vice-Chairmen are usually non-officials.

Municipal Income.

119. These bodies derive their income partly from taxation and partly from other sources. The taxation levied in municipalities is chiefly in the form of a tax on persons or buildings, a latrine tax and a water-rate (in Gauhati and Shillong); in stations the taxation is a house assessment, and in unions a tax on persons is levied. Other items of taxation are taxes on animals and wheeled vehicles. These taxes are levied under the provisions of the Act under which each municipality, etc., is constituted. No octroi or other duties are taken anywhere in the province. Of the other sources of income, the most important are the receipts from ferries [levied under the provisions of sections 148-156 of Act III (B. C.) of 1884, or sections 139-147 of Act V (B. C.) of 1876, as the case may be], from municipal pounds, the income from municipal markets, and the assignments from Provincial and Local Funds enjoyed by several municipalities. The last item consists of grants made in commutation of the land revenue of the town areas, which in the early days of the province was allowed to be appropriated to the improvement of the towns. In 1911-12 municipalities enjoyed an income of Rs. 5,32,508, of which Rs. 1,79,839 were derived from taxation, and had an expenditure of Rs. 4,12,757.

Local Boards.

120. The Local Boards, of which there is one for each plains subdivision, are constituted under executive orders. Each Local Board comprises from twelve to twenty-two members, of whom four are officials, and the remainder non-official residents of the subdivision. In tea districts, a proportion of the non-official members are tea planters, the remainder being natives of India. The planter members are in all cases elected by the planting community, and a certain number of the native members also are chosen by election, the rest being nominated by the Chief Commissioner. The Deputy Commissioner of the district or the Subdivisional Officer, as the case may be, is *ex-officio* Chairman of the Board. In each subdivision the Local Board is entrusted with the maintenance of all roads in the subdivision, except a few main lines of communication, and also with the management of primary education, subject to the general control of the Education Department. It is also empowered to make grants-in-aid to schools of higher grade, subject to rules which have been laid down. The Boards also deal with the administration of and expenditure on village sanitation, dispensaries, and vaccination. For these purposes, the Boards have placed at their disposal the rate which is levied under the Assam Local Rates Regulation of 1879, at the rate of one anna per rupee on the annual value of lands, as well as the surplus income of pounds and ferries, and some minor receipts. This income is supplemented by annual grants from Provincial Funds, the amounts of some of which are fixed. The annual budgets of the Boards are submitted to the Commissioner for sanction. The Local Board may itself sanction any work, the estimated cost of which does not exceed Rs. 2,500, but the professional approval of the Inspector of Local Works must be obtained when the cost exceeds Rs. 1,000. The execution of important works requiring much professional skill is entrusted to the Executive Engineer, less important works being entrusted to the Board overseers, and in the tea districts much assistance is rendered by planters in carrying out work for the Local Boards. A draft Act designed to place the constitution of the Boards on a legal footing, and to extend their powers, is now under consideration.

Immigration and labour inspection.

121. This section would not be complete without a reference to the system under which labour has hitherto been imported from other parts of India for the Assam tea gardens and the treatment of labourers under contract has been regulated and controlled. The indigenous population of Assam consists almost entirely of petty cultivators, and contains no labouring class which is compelled to resort regularly to employment for hire as a means of subsistence. The tea industry, therefore, ever since its establishment in the province, has been obliged to import labour from other parts of India. This immigration has done much towards opening out and colonising the fertile and sparsely-peopled districts of Assam, while relieving other provinces of a portion of their surplus population. The principal areas of recruitment are at present the Plains Districts of the United Provinces and Bengal, Chota Nagpur, the Sonthal Parganas, and the Central Provinces. The classes which furnish emigrants are extremely ignorant, and the interference of Government is required to secure that they are not imposed upon, while, during transport between their homes and the place of labour, supervision is necessary to prevent overcrowding, disease, and consequent mortality. Under the changed conditions of life and especially of climate and food, which the new country imposes, the immigrant is peculiarly liable to sickness, often fatal in its results, and it is thus needful that the provision of the requisite comforts, medical attendance and other appliances for his well-being should be enforced by law. On the other hand, some regulation of the contract between the labourer and his employer, and some more effectual means of enforcing it than a civil action, was held to be demanded by justice. It costs a large sum to import a coolie into Assam; the provisions for his comfort, which the law requires, are also expensive; and it seemed only equitable that the law should provide the employer with the means of obtaining the due fulfilment of the contract by the coolie, whose only capital is his labour, and who ought not to be allowed capriciously to withdraw himself from the service of the person who has paid for his introduction. On these grounds it was early found necessary to legislate, on the one hand, for the enforcement of labour contracts by special penalties and on the other for ensuring the proper treatment of the labourer,—a penal labour law and Government protection for the labourer being correlative terms.

122. The first Labour Act was passed in 1863, and since then the law on the subject has been changed by successive enactments. The last of these was Act VI of 1901, which is still in force. It fixes the maximum term of the labour contract at four years, and prescribed a minimum monthly wage, the payment of which is contingent on the completion of a daily task by the labourer. Labourers under contract deserting are liable to fine and imprisonment. It provides for the grant of

subsistence allowance to weak and sickly labourers, for the provision of suitable house accommodation, water-supply, and medical attendance, and also for the inspection of estates, the control of task rates, the cancellation of contracts in case of ill-usage by employers, and the closing of unhealthy estates to contract labour. The executive administration of the Act is entrusted to the Deputy Commissioners and Subdivisional Officers of tea districts, who are *ex-officio* Inspectors of Labourers. The Civil Medical Officers of tea districts, and certain District and Assistant Superintendents of Police and Assistant Commissioners, have also been appointed Inspectors and Assistant Inspectors of Labourers under the Act. The legislation embodied in Act VI of 1901 was undertaken in consequence of complaints received as to the prevalence of malpractices in connection with recruitment, and it was further hoped that the excessive cost of importing labour, which was believed to be due to the operations of contractors for the supply of labourers and of the recruiters employed by them, would be reduced.

The Act brought the operations of contractors under greater control, and favoured the employment of garden sardars, or coolies sent from the gardens to their native districts, commissioned to recruit other labourers in the neighbourhood of their homes. It raised the minimum wages payable to labourers under contract, fixing these at Rs. 5 a month for a man and Rs. 4 a month for a woman for the first three years of the contract term, and Rs. 6 for a man and Rs. 5 for a woman for the fourth year. Contracts made after the 1st April 1903 provided for the payment of not less than Rs. 5-8 a month for a man and Rs. 4-8 a month for a woman in the second and third years of the contract term.

In 1906 a Committee was appointed to enquire into labour conditions, and as the result of their recommendations the Act was considerably modified. The right of private arrest was withdrawn, and it is no longer permissible for labourers to enter into labour contracts locally. The labour districts provisions of the Act have been declared to be no longer in force in the Surma Valley and in the districts of Goalpara and Kamrup. It follows that no persons recruited for gardens in these areas can be placed under contract, while in the four upper districts of the Assam Valley all labourers imported under contract became free on the expiry of the term for which they engaged, and cannot enter into new labour contracts under the Act. Special concessions have been given to garden sardars working under the control of local agents belonging to approved Associations, and all coolies recruited by such sardars, as well as those recruited by special sardars under Section 90 of the Act, go up free to the Assam Valley. Only coolies recruited by contractors, and by garden sardars who do not work under one of the privileged Associations, are now placed under contract. The whole labour force in the Surma Valley is free, in that there are no labour contracts under the Act, and even in the upper districts of the Assam Valley the substitution of free for indentured labour is well nigh complete. The Government of India have announced their intention of withdrawing the labour districts provisions of the Act at no distant date from the whole of Assam, and the question of the extent to which the present restrictions on recruitment can then be relaxed is now under consideration.

The gradual disuse of the penal provisions of Act VI of 1901 has been accompanied by a growing use of Act XIII of 1859. This Act, which is popular alike with employers and with labourers, provides penalties for breach of the contract, but does not regulate its terms in any way, or contain any special provisions for the protection of the labourer.

SECTION 4.—... ...er of Land Tenures and System of Settlement and Survey.

123. The ordinary land tenures vary considerably in different parts of Assam. Distinct systems of tenure are found in—

(1) Assam Proper,
(2) Goalpara,
(3) Sylhet,
(4) Cachar,
(5) The hill districts,

while several varieties of special waste land tenures, granted by Government at different periods, exist in all the plains districts.

124. There are three main classes of ordinary tenure in the Assam Valley, exclusive of Goalpara, *viz.*, *raiyatwari*, *nisf-khiraj* and *lakhiraj*. The *raiyatwari* tenure is of the simplest character: the raiyat holds an annual or periodic lease from Government, being free to relinquish the whole or any part of his holding, which is separately

Assam Proper raiyatwari tenure.

assessed, provided that notice is given to the revenue officers at the proper time of the year and in the manner prescribed. Any waste unoccupied land may also be taken up for cultivation without notice or application, and, when so taken up, is settled with the occupant. Large areas of land are annually relinquished and taken up in this way in those parts of the valley where fluctuating cultivation is practised. These are chiefly the inundated tracts in the nighbourhood of the Brahmaputra, which comprise extensive areas of culturable waste land, covered with high grass and reeds, which can be reclaimed without difficulty. In these areas, the most profitable system of cultivation is that under which land is cropped for not more than three years in succession, usually with *ahu* rice and mustard, and is then left fallow for a term of years. Fluctuating cultivation also occurs in the thinly-peopled submontane tracts. In the intervening regions where population is more dense, and *sali* rice is grown, settled land is seldom relinquished, and in normal times there is a steady extension of permanent cultivation with the growth of population. Prior to 1870, all *raiyatwari* lands were held on annual leases, but in that year a set of rules for the encouragement of ten-year leases was sanctioned by the Bengal Government, expressly declaring that holdings so settled should be heritable and transferable, on condition of the transfer being registered in the Deputy Commissioner's office, while holders on annual *patta* were left without any legal assurance on these points. The principle of these rules was afterwards embodied in the Land and Revenue Regulation of 1886, which confers a permanent, heritable and transferable right on persons holding land under a lease the term of which is not less than ten years, but recognises no rights beyond those expressed in the lease in the case of annual tenants. The rules of 1870 remained practically inoperative until 1883, when they were recast, and a general system of ten-year settlements was introduced in all parts of the Assam Valley, where the cultivation and occupation of land are of a permanent character. In the five districts of Assam Proper, the bulk of the more permanently-cultivated land is, therefore, now held under a periodic settlement, during the currency of which the raiyat is guaranteed against enhancement of the revenue rates. He is at liberty to relinquish the whole or any portion of his holding as stated above, and to take up new lands; while he is entitled to receive compensation from Government for any lands taken up for a public purpose. The rest of the area, where a fluctuating system of cultivation prevails, is resettled annually on the basis of actual occupation; and, if dispossessed by Government for a public purpose, the raiyat is only entitled to compensation for the value of any trees, houses, crops, etc., actually standing on the land at the time of its resumption, but not to compensation for the land itself.

Nisf-khiraj and lakhiraj estates.

125. The holders of *nisf-khiraj* and *lakhiraj* lands enjoy an assignment, respectively, of half and the whole of the assessable land revenue: in addition they hold their lands in a proprietary right which is at present unfettered by any tenancy law. These tenures originated in alienations, whether of land or of the revenue or service dues upon land, that had been made by former rulers of the country for religious and other purposes. On the lands now held as *nisf-khiraj* the last Ahom ruler, Chandra Kanta Singh, imposed a tax, called *kharikatana*, of 5 annas a *pura* (equivalent to $1\frac{1}{3}$ acres), which continued to be levied by the Burmese invaders after their conquest of the country. When Assam became British by conquest, all these grants were held to have lapsed; but Mr. Scott retained the moderate assessment which he found in force upon them, adding later on 2 annas a *pura*, so that the whole assessment came, as left by him, to 8 annas a *pura*. In 1834 the Government directed that a full enquiry should be made into all claims to hold land rent-free as *debottar*, *dharmottar*, or on any other plea, throughout the district of Assam. Captain Bogle was appointed to make this enquiry, subject to the control and orders of the Commissioner, Captain Jenkins. Another officer, Captain Matthie, was also similarly employed. At the same time the following principles were laid down for the guidance of these officers:—

(1) All rights to hold land free of assessment, founded on grants by any former Government, were to be considered as cancelled; and it was pointed out that any claims for restoration to any such tenures could rest only on the indulgence of Government.

(2) All lands found to be held in excess of what was held and possessed under *bonâ fide* grants prior to the Burmese conquest, or for services no longer performed, as well as all lands held for services no longer performed, were to be assessed at full rates.

(3) All lands, held on *bonâ fide* grants before the Burmese conquests, or for services still performed, were to be reported to Government; on receipt of the report special orders would be issued on each case.

(4) Captain Jenkins might in his discretion suspend the orders for bringing any particular land on full rates; but he was to submit his reasons for the consideration of Government.

(5) Pending the *lakhiraj* enquiry, Mr. Scott's moderate rates were to be levied as before on all lands claimed as *lakhiraj* (whether as *debottar*, *brahmottar*, *dharmottar*, or on whatever plea) until brought under assessment at full rates, or until orders to the contrary were received from Government.

The work was commenced in 1834, but was not concluded till 1860, and in the lapse of time these orders were altogether forgotten. Instead of referring the cases, which came before him, for the orders of Government, General Jenkins dealt with them in a manner which was not authorised by his instructions. He drew a distinction between *debottar* or temple lands, and other grants, such as *brahmottar* (personal grants to Brahmans for religious services), *dharmottar* (grants to religious communities other than temples, or for pious uses), etc. In the case of the first, when he found the grants to be *bonâ fide* and valid, he confirmed them as revenue-free, without, as he was ordered, referring the case to superior authority. In all other cases of *bonâ fide* and valid grants, he simply confirmed the grantee in possession, and directed that, as ordered in his instructions, the land should be assessed as before, *i.e.*, at Mr. Scott's favourable rates of 8 annas a *pura*, pending the final orders of Government on the whole question. Where the land held was not found to be held under a *bonâ fide* and valid grant, it was resumed and settled at full rates, which in those days were Re. 1 a *pura*. But no reference was ever made to Government on the conclusion of the proceedings; and thus until 1861, when the revenue rates were raised throughout Assam, the second class of lands continued to be assessed at rates which, though this was not expressly intended, were, as a matter of fact, half the rates prevailing for other lands.

The matter was then allowed to rest till 1872, when a long correspondence began, which was not finally closed till 1879. It was considered by the Government of India that the grantees having so long been suffered to hold at half rates, it would not be judicious to make any alteration in their status; and so General Jenkins' unauthorised action was condoned. These half-rate holders were at that time called, equally with the revenue-free holders, *lakhirajdars*. The term *nisf-khirajdar* was adopted in 1871, as a more accurate description of their status as landholders liable to be assessed at only half the current rates of revenue, whatever these may happen to be.

A *nisf-khirajdar* now enjoys the further privilege of holding the waste land of his estates free of revenue unless he derives a regular income from it.

Three-fourths of the total number of *nisf-khiraj* estates are situated in the district of Kamrup and date from the last period of Ahom rule, when the seat of Government had been transferred from Garhgaon to Gauhati, and the Ahom kings gave away lands wholesale with all the zeal of recent converts to Hinduism. The *lakhiraj* or *debottar* grants, on the other hand, are usually of older date, the most ancient being ascribed to kings Dharmapal and Vanamala, who are believed to have reigned about the eighth century A. D.

The other special tenures in Assam Proper are *chamuas*, *khats*, ten-twenties, and six-pie *lakhiraj* tenures. A *chamua* is simply a large holding under Government, the land being held at ordinary rents. The *chamuadar* has the privilege of paying the revenue direct into the treasury instead of through the local fiscal officer, and is granted a commission of 10 per cent. on the total demand. There is now only one such tenure in Assam. There are four *khats*, *viz.*, 1 in Nowgong, 1 in Lakhimpur, 2 in Kamrup. In two of these *khats* the *khatdar* is simply in the position of the ordinary mauzadar, but in the other two the *patta* is issued to the *khatdar*, and not to the cultivators direct. These *khats* are all assessed on cultivation only at ordinary *khirai* rates. In Nowgong the concession of 10 per cent. commission which was personal to the predecessor of the present *khatdar* has now lapsed. In the Lakhimpur district there has been an increase in area of 144 *bighas*, in revenue of Rs. 333, due to extension of cultivation. Ten-twenties are also tenures which are settled at ordinary rates, their only privilege being that when the land revenue exceeds Rs. 20 half of the total demand is remitted, but when the revenue is between Rs. 10 and Rs. 20, the remission is restricted to half the amount by which it exceeds Rs. 10. There are 4 such estates in Sibsagar. The six-pie *lakhiraj* estates consist of nine holdings covering about 2,755 acres of land, which pay a revenue of 6 pies per *bigha* of cultivated land, this being the amount of blackmail originally given by the owners to the hill tribes. These estates are to be found only in the districts of Darrang and Lakhimpur.

The *nisf-khiraj* and *lakhiraj* estates are, like the *chamuas* and *khiraj khats* already mentioned, ordinarily cultivated by sub-tenants, who, when their superior landlord is (as is generally the case) a religious institution, are known as *paiks* or *bhakats* of the temple or *satra*.

Goalpara.

126. What is known as the permanently-settled portion of Goalpara consists of nineteen permanently-settled estates and eight small temporarily-settled holdings. These between them cover the whole district, excluding the Eastern Duars. Nine of the nineteen permanently-settled estates are those of the border *Chaudhuris*. The remaining ten consist for the most part of lands originally held revenue-free on invalid titles which were resumed in consequence, and settled at a *jama* fixed in perpetuity. The eight temporarily-settled estates include five *chars*, which are farmed yearly to the highest bidder. Of the remaining three, two are resumed *lakhiraj*, and the third was acquired by Government as a free gift from the zamindar.

Eastern Duars.

127. The Eastern Duars comprise five separate tracts, *viz.*, Bijni, Sidli, Chirang, Riphu, and Guma. The last three are the exclusive property of Government, and are managed on the same system as the *raiyatwari* tracts of Assam Proper, the only difference being that in the greater number of the estates cultivation is entirely on annual leases, and that the revenue rates are lower than those prevailing in Assam. Bijni and Sidli, with the exception of the submontane forests which have been excluded from them and brought under conservancy, are the estates of the Rajas of the same names. The Sidli estate is under the management of Government, the Raja receiving 20 per cent. of the rental as *malikana* : but the Bijni Duar was settled with the Rani for ten years in 1901, at a revenue of 80 per cent. of the estimated rental of the estate in that year, and the settlement, which expired on 31st March 1911, has been extended pending proposals for resettlement. An application from the Raja of Sidli to be allowed to manage the Duar of that name is also under consideration.

Sylhet.

128. The land tenures in the district of Sylhet (excluding Jaintia, which was not annexed to the district until 1835) present a remarkable contrast to those of all the districts of the permanently-settled Bengal, except Chittagong. In no other district was the permanent settlement preceded, as in these, by a survey ; in no other district were the zamindars passed over at that settlement in favour of the superior raiyats or middlemen called *mirasdars* or *talukdars** (*cf.* the Chittagong *tarafdars*). The consequence of the survey is that all lands within the surveyed portion of the district which were settled in 1791-92, the date of the decennial settlement, and have not since been specially settled in perpetuity, are the property of Government and held under temporary settlement. The result of the settlement having been made with a large number of middlemen is that, while in the districts of permanently-settled Bengal estates are counted by tens or hundreds, in Sylhet they are counted by thousands, and the individual revenue of each estate is generally very small. Thus Sylhet is distinguished (1) by the large proportion of its area which is not permanently-settled, and (2) by the extremely small payments of revenue due from individual estates, which make the collection (in the absence of *mufassal* revenue establishments entertained nowhere in permanently-settled districts) a peculiarly difficult and complicated task.

Permanently-settled tenures.

129. The permanently-settled tenures of Sylhet are all held on the same conditions, but have received the names given below with reference to their revenue history :—

(1) *Dassana*, estates included in the decennial settlement of 1791-92, which in 1793 became permanent.

(2) *Bazyafti Daimi*, lands resumed by the Special Commissioner appointed under Regulation III of 1828, and then permanently-settled.

(3) *Ilam*, lands settled permanently (see below under temporarily-settled estates).

(4) *Khas Daimi*, permanently-settled estates purchased by Government at sales for arrears of revenue and sold again as permanently-settled.

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* This does not apply to (1) parganas Taraf, Bamai, and Putijuri, forming zila Laskarpur in the Habiganj subdivision, which were transferred to Sylhet from the Dacca and Mymensingh districts after the assessment for the decennial settlement had been effected, and (2) certain parganas in the Sunamganj subdivision which could not be surveyed on account of difficulties with the Khasis. In other parts of Sylhet also the settlement was occasionally made with the zamindars, and not with the raiyats.

(5) *Halabadi.*—The term *halabadi* literally means "recently cultivated," but in Sylhet it is applied to all lands not included in the decennial settlement of 1791-92. The so-called *halabadi* (also known as *abadi* or *jangal abadi*) *pattas* or *sanads* were granted between the years 1791 and 1807. They contained no express limitation of the term of settlement, and in 1869 were held by Government to have been settlements in perpetuity.

(6) *Khas halabadi*, estates belonging to class (5) which, having been bought in by Government at sales for arrears of revenue, have been resettled permanently.

(7) *Permanently-settled waste-land grants.*—The proprietors of three *halabadi* estates paying a revenue of Rs. 9-5-3 claimed a large tract in the Raghunandan Hills. Their claims were compromised by the grant in perpetuity of two estates covering an area of 1,659 acres and paying a revenue of Rs. 9-6-0.

(8) *Dhali Mujrai mahals*, exempted from assessment on condition of the holders furnishing *dhali* servants for the Sylhet Collectorate. At present five such servants are furnished.

Temporarily-settled tenures.

130. The temporarily-settled estates of Sylhet are also known under different names, but by far the most extensive class, excluding the Jaintia parganas referred to in the next paragraph, is that called *ilam*. In consequence of the success met with in Behar in bringing under assessment land not included in the decennial settlement which afterwards became permanent, the *pargana patwaris* were, in 1802, directed to prepare and submit schedules of land in their respective *parganas* which had not been included in that settlement. On receipt of these schedules, the Collector issued proclamation (*ilams*) inviting claimants to any of the lands to come forward, but no one appeared to claim them. These lands have thus acquired the names of *ilam* or proclaimed lands. During the years 1829 to 1834, these *ilam* lands were surveyed, and in 1835 those that were found cultivated were settled with the occupants if willing to engage; otherwise they were farmed. The term of the first settlement was ten years for cultivated and fifteen years for jungle lands, and it was subsequently renewed on its expiry for successive further periods. In 1869 a systematic survey was commenced, and revised rules of settlement and a form of *patta* were drawn out. These rules were again revised in 1875 and modified in 1876. The resettlement commenced in 1871, and was practically concluded in 1881. On resettlement, all waste lands, in excess of one-fifth of the cultivated area of an estate, were, as a rule, excluded from the settlement. In order to protect the rights of Government in these excluded lands and to prevent encroachment by the neighbouring permanent settlement-holders, a special form of farming lease was sanctioned in 1889. The settlement of *ilam* estates under the rules of 1869—1876 was made so as to expire on different dates, but with the exception of certain estates, which were settled with tea planters on special terms and the Pratabgarh tenures to be mentioned subsequently, all *ilam* leases in the district had run out by the 31st March 1896. The leases were, however, extended pending the completion of resettlement operations undertaken in that year, till the 1st of April 1902, from which date the ordinary *ilam* lands have been resettled on leases for 20 years.

The *raiyatwari* tract of Pratabgarh in the south of the Karimganj subdivision, comprising an area of 36 square miles, was originally composed of *ilam* estates, which were settled with bodies of cultivators in 1875—1878. The settlement, however, broke down as the lessees were men of little substance, who quarrelled among themselves, and a *raiyatwari* settlement was extended from year to year pending a fresh survey, which was not completed till 1893. Another five years' settlement was then made, which expired in 1898, but was extended till the 1st April 1902, when the tract was settled for 20 years along with the ordinary *ilam* estates.

So much of the *ilam* area, as was not included in the settlements of 1835 and subsequent years, has been entered in the waste land register as waste at the disposal of Government; much of it has been taken up by tea planters on the waste land tenures to be hereafter described.

The rest of the temporarily-settled area in Sylhet, outside the Jaintia parganas, falls apart into two divisions: first, the small tenures settled on the same principle as *ilam* lands, but different in their origin; and, secondly, the areas held *khas* by Government, in which, instead of making over definitely the use and occupancy of the land to a settlement holder who may eventually become a middleman, the Government has retained the management in its own hands, and deals directly with the cultivators.

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The first class is technically known by the following names:—

(1) *Nankar patwarigari.*—Lands formerly held by the *pargana patwāris* as *nankar*, *i.e.*, in lieu of salary. The *patwaris* were abolished in 1833, and the lands were ordered to be assessed in 1835.

(2) *Char bharat.*—Alluvial accretions, which in Sylhet all belong to the State.

(3) *Bil-bharat.*—The silted-up beds of *bils*, which were excluded from the permanent settlement because they were then useless.

(4) *Ijad.*—Surplus lands discovered after the permanent settlement (but not formally proclaimed as the *ilam* lands were) and thus not included in it.

(5) *Resumed revenue-free land.*—Resumed because found to be held on invalid titles.

The *khas* lands in Sylhet are, for the most part, former *ilam* estates, the settlement of which has for various reasons broken down. In some cases the holders as a body refused to accept resettlement with joint responsibility; other estates have been bought in by Government at sales for arrears of revenue; in other cases, again, the settlement has been cancelled for default in payment of revenue. These estates are managed upon principles similar in general to the *raiyatwari* settlement of Assam Proper. Certain fixed rates are laid down, and rayats are free to take up land when they please at those rates, after application to the tahsildars.

In addition to the above, the term "*khas*" included also petty permanently-settled estates of little value, bought in by Government at sales for arrears of revenue and not resettled in perpetuity.

Estates in classes (1) to (5) were settled under orders issued in a Resolution of the Government of Bengal in 1871. The settlements were made so as to expire on different dates, the latest extending till the year 1907, and are now being resettled. Those estates of which the settlement had expired before the 1st April 1902 were resettled for 20 years from that date along with *ilam* estates, and some others, whose term expired in 1903 to 1905, were settled in 1904 on the same principles.

Jaintia parganas.

131. The Jaintia parganas have, since they first came under British rule, been temporarily settled.* The first regular settlement was made in 1838—1840, when the tract was professionally surveyed and measured. It was made for a term of five years, at the end of which it was further extended for ten years, and then again extended, so that the settlement of the whole area expired in 1856. In that year the tract was resettled, without remeasurement, for twenty years. This settlement expired in 1876, but revised rates were not imposed till 1879, and the settlement, then made, remained in force till 1898, when the parganas were resettled for a term of 15 years.

Lakhiraj estates.

132. Besides these permanently and temporarily-settled estates in Sylhet, there are, as in other districts, valid *lakhiraj* or revenue-free estates. These include the following:—

(1) One hundred and seventy-seven grants, covering an area of 20,037 acres, which were declared valid after resumption proceedings under Regulations II of 1819 and III of 1828.

(2) Six thousand seven hundred and seventy-five petty grants, mostly under 10 *bighas* in area, which were exempted from assessment under order of the Bengal Government in 1841. The area of these grants aggregates 9,681 acres.

(3) Two thousand three hundred and sixty-eight redeemed estates, covering an area of 3,373 acres, consisting of *ilam* estates paying a revenue of Re. 1 and under, which were sold at auction revenue-free, and other estates redeemed on payment of twenty or twenty-five times the annual revenue.

(4) One grant, fee-simple or commuted to fee-simple with an area of 1,878 acres.

(5) *Kasba* Estates in Sylhet.—These estates are nominally all less than 10 *bighas* in extent, but many, as a matter of fact, greatly exceed this area. This anomaly probably originated through fraud, but it would be difficult, if, not impossible, to rectify it now. Though not assessed to land revenue, they are not, however, treated as *lakhiraj* and are not entered in the Register of Revenue-Free Estates. The *thak* area of the *kasba* is 4,560 acres.

* With the exception of 33 permanently-settled and 29 revenue-free estates. The former consist of lands claimed as revenue-free, but resumed by the Special Commissioner appointed under Bengal Regulation III of 1828 and subsequently permanently settled.

133. When Cachar was annexed in 1830, Government stepped into the position of the Raja as absolute owner of the soil. The great bulk of the land is held either (1) revenue-free under fee-simple and commuted grants taken up for special cultivation, or (2) on *jangalbari* or waste-land reclamation leases for periods of 20 or 30 years at progressive rates, or (3) at ordinary rates on what was formerly known as the *mirasdari* tenure, under which bodies of men often of different castes and religions combined together to break up waste land for which they received an *ijmali patta*, imposing upon them joint responsibility for the revenue. The system of joint ownership was found, however, to be a source of inconvenience to the settlement-holders, as well as to the Government, and at the resettlement of the district, which was effected in 1900 for a term of 15 years, these co-parcenary *mahals* were broken up and separate leases were issued to the individual settlement-holders. Cachar.

There are a few *lakhiraj* or revenue-free estates in Cachar, being the grants held by dependents of the old royal family, or dating from the time of native rule. These are known as *baksha* lands, and are revenue-free only so long as they remain in possession of the grantee and his heirs; when alienated, they are liable to assessment like other *mirasdari* lands. Considerable areas are also held for special cultivation under the old Waste Land Rules, the Rules of 1876, and Section I of the Settlement Rules.

134. In the hill districts there is no land revenue settlement properly so called, except in a few isolated tracts. The strip of plains land, which encloses the Garo Hills on three sides, is managed on the system of settlement which obtains in Assam Proper, save in one portion, where the zamindars of Mechpara hold certain land as part of their permanently-settled estates, and manage it themselves. The terms of tenure are similar to those of the annual *patta* holders of Assam. In the Khasi and Jaintia Hills, a class of land, known as *raiyhali* in the Jaintia Hills subdivision, has since the year 1886 been assessed to land revenue under special rules, the rate charged being 12 annas per *bigha*. In the rest of these districts, Government does not assess the land, but the houses. Each village, however, in the Garo, Khasi and Jaintia, and Naga Hills has its own known lands, in which rights of private ownership are recognised to a degree which seems surprising in so primitive a state of society. The system of cultivation by *jhum*, which prevails throughout the greater part of this area, demands long periods of rest during which the land becomes reclothed with forest; and it is often difficult to believe that what seems an uncared-for wilderness is really jealously guarded private property of a clan, family or village. But the case is so; and no quarrels have been more enduring or more bitter among these people than those relating to land. The customs of land tenure among these primitive races are often strangely complicated and full of interest; but it is impossible to describe them at length here. The practice of taxing houses, instead of assessing the land, prevails also in certain remote parts of the plains districts, such as the North Cachar subdivision and the Mikir Hills in Nowgong, while from the Miris in Lakhimpur and the Tipperas in Sylhet a poll-tax is collected in lieu of land revenue. Hill districts.

135. The professional revenue survey of the plains districts of the province was undertaken while these districts formed part of Bengal, and was brought to a conclusion shortly after the formation of the Chief Commissionership. In this survey village boundaries where they existed, and the boundaries of certain tea grants and revenue-free estates, as well as the geographical and topographical features of the country, were mapped usually on the scale of 4″ to a mile, but, except in the Jaintia Parganas and Cachar, no field survey was made, and the results were of little practical use for revenue purposes. In the permanently-settled portion of Sylhet, the survey was preceded in the years 1859—1865 by a demarcation of the boundaries of villages and estates by non-professional agency, in the course of which maps of the estates were prepared by chain and compass on the scale of 16″ to a mile, and these maps, inaccurate though they are in many respects, afford the most recent record of the boundaries of estates in that area. A cadastral survey, based on a regular professional traverse of the portions of the Assam Valley where most cultivation was to be found, was commenced in 1883 and completed in 1893, and similar cadastral surveys of the *raiyatwari* portions of Sylhet and Cachar have been effected for resettlement purposes in subsequent years. The field maps of these surveys are on the scale of 16″ to a mile. Surveys.

While the cadastral survey of a portion of the Assam Valley districts was in progress, the opportunity was taken to train the local mandals in surveying with the plane-table, and after the professional party had left the valley, certain additional areas were surveyed cadastrally by local agency on the basis of plane-table traverses in successive years. It was subsequently decided that all such extension surveys should be made on the basis of theodolite traverses, and in 1899 a professional Survey

Detachment was maintained in Assam and was charged with the duty of preparing traverses for further cadastral surveys which the extension of cultivation necessitated, as well as with correcting and bringing up to date the topographical details in the standard district maps, and with minor survey operations, undertaken in the province, which required professional skill. The detachment merged in the separate Survey Department formed under a Director of Surveys for the province of Eastern Bengal and Assam from 1909-10, and its functions were performed by that Department until the 31st March 1912. There is just now one Survey Department for Bengal and Assam which temporarily performs all the above duties in respect of this province; the question of future arrangements is under consideration.

Whenever an area has been brought under cadastral survey arrangements have been made for having the maps and other records kept as far as possible up to date and permanent marks looked after by the agency of mandals in the Brahmaputra Valley and patwaris in the Surma Valley.

Petty settlements. Assam Proper.

136. The nature of the *raiyatwari* tenure in the Assam Valley has already been described. Estates held on annual lease are settled every year, and the annual relinquishment and taking up of land in tracts, where fluctuating cultivation prevails, necessitates a somewhat elaborate annual revision of settlement, on the accuracy of which depends the correct assessment of the land revenue demand. The periodic settlements undergo no alteration during the length of their term, save such as may be caused by the raiyat's relinquishing some fields of his holding. Every new settlement, whether annual or periodic, is preceded by measurement, which, like the assessment, is effected by the mandals under the supervision of the Sub-Deputy Collector who is responsible for the assessment, while the mauzadar is responsible for the collection of the demand. The average gross area of a mandal's circle is nearly 8 square miles.

Measurement.

137. The bulk of the cultivated area in the Assam Valley has been cadastrally surveyed on the scale of 16″ to a mile, and, where this is the case, all new fields are regularly surveyed and plotted on the cadastral sheets by the mandals, old and permanent cultivation being distinguished from land newly taken up by the use of different coloured lines. In tracts which have not yet come under survey, areas are estimated by measuring up the four sides of each field with a 30-foot chain and multiplying together the mean length and breadth thus ascertained. The registers in which the results of the measurements are recorded are two in number—a field register or *dagchitha* and a *jamabandi* or revenue roll. The former shows the number borne by each field, the raiyat's name, the area and class of soil; in non-cadastral tracts the boundaries and dimensions are also entered. The *jamabandi* is a record of the fields constituting each raiyat's holdings, their area, soil, class and assessment. Separate *jamabandis* are maintained for lands held on annual and on periodic leases. In the annual measurement of new lands and revision of settlement papers mandals are controlled by Sub-Deputy Collectors and Supervisor-kanungos, each of whom has under his charge a number of mandals' lots varying from one to thirty.

Assessment.

138. In the five upper districts of the Brahmaputra Valley the main classes or descriptions of land recognised generally are *basti*, *rupit*, and *faringati*. The first mentioned is the land on which the raiyat's house stands, with the garden enclosure around it; *rupit* land is land which grows any species of transplanted rice; the term *faringati* is applied to all land not falling within either of the two former classes, and includes land growing *ahu* or summer rice, sugarcane, mustard, and other crops.

Until 1893 no attempt had been made to proceed further in the direction of classification. Advantage was then taken of the expiry of the decennial leases to revise the assessment, and, while securing to Government a share of the increased value of the produce, to introduce a more detailed system of classification. The resettlement of the whole five districts was effected in a single season and made no pretence to scientific accuracy. The main consideration taken into account was the demand for land in a village as shown by the density of population and the proportion of settled to total area. All land of the same description in a village was placed in the same class, and villages were divided into four classes, this rough method of assessment being justified on the ground that the rates were low, and could be borne by the worst lands in a village without difficulty. The settlement of the five upper districts of the valley was concluded for ten years from the 1st April 1893.

After the conclusion of the settlement of 1893 it gradually became apparent that the revenue demand was most unevenly distributed and the main object of the resettlement was to substitute a more fairly proportioned demand. With this object in view the well known "soil-unit system" which was devised by Sir J. B. Fuller in

1885 in the Central Provinces, where it proved most successful, has been introduced since 1902 into all areas under permanent cultivation. The old descriptions known as *basti*, *rupit* and *faringati* were each subdivided into classes recognised by the cultivators. The nett relative productiveness of each class of land was expressed by a numerical factor: this figure is taken to represent the number of what are called "soil-units" in each bigha (or other standard of measure) of the particular class of land: consequently if the area of any class is multiplied by its factor, the product is the number of soil-units in that area. In ascertaining the incidence of the existing demand in a particular village, it is evident that the incidence on the soil-unit, or, as it is called, the unit incidence, will be a much better criterion of revenue pressure than the incidence on the acre or bigha, which makes no allowance for differentiation of soils. But the usefulness of the system is appreciated much more when it is a question of settling the rate to be imposed: for the determination of the percentage of increase or decrease per acre will not in any way indicate the percentage of increase or decrease in soil rates which should be imposed to produce the result aimed at. For example, if there are three soil classes, *a*, *b* and *c*, the factors of which are 20, 10 and 5, the number of soil-units in a bigha of each class is 20, 10 and 5, respectively: if there are 100 bighas of *a*, 260 of *b* and 1,000 of *c* in a village, the revenue of which is Rs. 480, the unit incidence is obtained as follows:—

Bighas.				Soil-unit.
100 × 20	...	...	...	2,000
260 × 10	...	...	...	2,600
1,000 × 5	...	...	...	5,000

9,600 divided into 480 × 16 = 0·80 annas.

If now it is determined to enhance the revenue of this village by 25 per cent. the new bigha rate for each soil class will be ascertained by multiplying the number of soil-units in a bigha or, in other words, the factor of each class by the new village rate, which in this case will be 1·00; thus the bigha rates of classes *a*, *b* and *c* will be rupees 1-4, annas 10 and annas 5. In practice, a number of villages are taken together in a group in which conditions are as homogeneous as possible: the unit incidence of the group is ascertained in the same way as for the village, and the group is rated as a whole by locally investigating various facts which throw light upon the pressure of the existing assessment: amongst these are the existing assessment, the economic condition of the people, the increase or decrease of population, communications, prices, trade and rates of rent. The group rate, having been determined, is used as a guide for fixing rates of villages, in which the process of assessment of fields is also from aggregate to detail.

It is impossible to give all the rates, which vary from village to village, but the incidence in annas of revenue per settled bigha of ordinary permanent cultivation at the time of re-settlement was:—

Kamrup	13·65	Darrang	13·39
Nowgong	11·52	Sibsagar	14·41
Lakhimpur	14·75		

The settlement of each district was fixed for twenty years, Kamrup and Sibsagar from 1905, Darrang and Nowgong from 1908 and 1909, and Lakhimpur from 1911 and 1912. All land taken up on periodic lease after the conclusion of the re-settlement is liable to revision ten years after the date of the re-settlement of the district. An important feature of this settlement was the imposition of low rates on unoccupied waste land which could not be classed by the settlement staff owing to the existence of jungle.

The rates of land taken up for tea on periodic patta are now as follows:—

	Per bigha, annas.
Kamrup, Nowgong and the Mangaldai subdivision of Darrang ...	8
Sibsagar and the Tezpur subdivision of Darrang	10
Lakhimpur	12

In the Eastern Duars and in the fluctuating tracts no attempt has been made to go beyond the old threefold classification of *basti*, *rupit* and *faringati*. The rates, current in that tract, are for *basti* and *rupit* 8 annas and *faringati* 4 annas per *bigha* except in the Guma mauza where the fourth-class village rates, formerly prescribed in respect of the upper districts of the Assam Valley, are imposed.

Sylhet.

139. In Sylhet the temporarily-settled portions, as already explained, consist of the Jaintia parganas and the *ilam* and other miscellaneous *mahals* not included in the permanent settlement.

The history of the Jaintia settlement has already been partly given. In 1838—1840 a cadastral or professional *khasra* survey was made of these parganas, and the maps of this survey formed the basis, with additional surveys by *amins* where fresh land had been taken up, of the re-settlement made in 1856. At this settlement, the rates of assessment were determined on local enquiry by the Settlement Officer and his subordinates, according to the nature of the soil and its capabilities. The rates varied from 2 annas 6 pies to Re. 1-0-3 per acre; but these rates were pitched extremely low in consequence of the successful opposition of the cultivators to the imposition of any higher assessment.

This settlement expired in 1876; but, owing to errors in the classification and assessment of the land, the new settlement was not finally completed until 1882 and terminated ten years later. The parganas were then surveyed and resettled for a term of 15 years with effect from April 1898, the date to which the former settlement had been extended. The assessment was made on principles somewhat similar to those adopted in the Assam Valley resettlement of 1893, villages being divided into five grades and land into four main classes, *viz.*, *basti* or homestead and garden land, rice land, waste, and land used for the cultivation of other crops than rice, assessed respectively at rates varying from 4 to 14, 4 to 10, 1 to 2 and 4 to 8 annas per *bigha*. Tea land was assessed at the uniform rate of 10 annas a *bigha*.

Ilam and miscellaneous temporarily-settled estates.

140. The resettlement of *ilam* and other miscellaneous temporarily-settled estates in Sylhet carried out in the years 1871—1881 has been referred to above. Before settlement, the lands were measured with chain and compass by amins, a plan of each estate on the scale of 16 inches to the mile was prepared, and the area was calculated in both *bighas* and acres. Their measurements were tested by the Settlement Deputy Collector. The rates of assessment were not independently determined with reference to the advantages of situation or fertility of the soil, but were fixed in each case by the Settlement Officer with reference to the rates paid by cultivators for similar lands in the neighbourhood. From these rates, a deduction of 15 per cent. was made to cover cost of collection and risks, and the remainder was fixed as the assessment of the *mahals*. On the expiry of the ordinary *ilam* leases in 1896, these estates, with other temporarily-settled estates, the terms of which had expired, and certain tracts of *khas* land, were resurveyed and reclassified on a different principle. Where the areas dealt with were of sufficient extent to admit of a regular traverse, they were traversed with the theodolite, and then surveyed cadastrally in blocks of convenient size, while the small detached estates scattered over the district, which it was not worthwhile to include in the traverse, were left to be surveyed independently with the plane-table. The lands, coming under resettlement, were classified according to four main descriptions, *viz.*, homestead, rice land, tea land, land growing crops other than rice and tea, and waste, and the whole area was distributed in four circles with reference to general considerations, such as liability to inundation, climate, facilities of communication, and proximity to markets. Within each circle the lands of each description were subdivided into classes with reference to broad differences of intrinsic quality. The rates assessed varied from 6 pies a *bigha* for waste to 14 annas for homestead and produced an enhancement of 46 per cent., chiefly owing to large extensions of cultivation.

Pratabgarh tahsil.

141. The *raiyatwari* tract of Pratabgarh was cadastrally surveyed for the purposes of the resettlement effected in 1893. On its expiry no resurvey was made, but the tract was reclassified on the same principles as the rest of the *ilam* area. As it was found that the raiyats had difficulty in paying their revenue at the existing rates, a reduction was made, the rates fixed varying from 2 annas a *bigha* for waste to Re. 1 for first-class homestead, as compared with 4 annas and Re. 1-2 under the preceding settlement.

Cachar.

142. The first regular settlement of Cachar was made in 1838-39 for a term of five years, and was based on a somewhat imperfect survey. In 1841-42 the district was surveyed on the same plan as the adjacent Jaintia parganas. The cultivated land in the several mauzas was surveyed, field by field, and so much of the uncultivated area as seemed likely to come under cultivation was also surveyed and divided into numbered *dags* or plots, the intention being that, as cultivation extended, these plots should afford the means of determining its site and a basis for a detailed map of its area. In 1843-44 a resettlement, based upon this survey, was made for fifteen years. Then followed the settlement of 1859, made for twenty years, which expired

in 1879. This also was based on the survey of 1841-42, and only land broken up since that year was measured up by *amins*. The land was divided into two classes, called *awwal* and *duam*, respectively; and within these classes it was ranged, according to situation, distance from navigable rivers, and exposure to the ravages of wild beasts, in four grades. The local measrue of land in Cachar is the *hal* or plough (also called hy the Arabic name *kalbah*), which is equal to 4·82 acres; and the rates imposed varied from Rs. 3-8 to Rs. 3 per *kal* for first-grade land to Rs. 2 to Re. 1-8 for fourth grade Waste land, producing thatching-grass and reeds, which are valuable products in the densely-peopled Surma Valley, was settled at the full rates of revenue charged for cultivated land in the neighbourhood. Forest jungle, which required much clearing, was settled for three years revenue free, and then at a progressive *jama*, rising to the full rates, charged for adjacent lands, at the end of the term, twenty years.

Settlement for fifteen years in 1878—1894.

142. On the expiry of this settlement, a fresh survey was made, and a settlement was effected for fifteen years, which extended up to the 31st March 1898. For the purpose of this settlement the three fiscal divisions, known as the Katigora tahsil, the Hailakandi tahsil, and the sadr tahsil, were dealt with separately. In each tahsil the soil was divided into four classes, *viz.*, homestead, cultivation, tea, and waste, and the lands of each class were again grouped in four circles, the constitution of the circles being based on a consideration of the productiveness of the soil, the facility or otherwise of communication, the liability to inundation, the exposure to the ravages of wild animals, and the proximity to dense forests.

The rates fixed at this assessment varied from Rs. 8-4-0 to Rs. 4-12-0 per *hal* for homestead land, from Rs. 7-2-0 to Rs. 3-12-0 for cultivation, and from Rs. 7-2-0 to Rs. 6 for tea. Waste was assessed at a uniform rate of Re. 1 per *hal*.

The district was resurveyed in the seasons 1893—1897 and, in April 1900, was resettled for a further term of 15 years.

The method of classification adopted for the purpose of reassessment was more discriminating than that employed at previous settlements. Instead of a rough classification of villages, an attempt was made to assign land to classes according to quality, and to recognise broad differences in the value of land within the village. Rice lands were distributed into five classes, homestead and ordinary cultivation other than rice into four each, and settled waste into two, while tea land was treated as a separate class, and assessed at a uniform rate. The rates of assessment, which were approved by the Government of India, resulted in the enhancement of the demand of the area coming under re-settlement from Rs. 3,07,624 to Rs. 4,51,568, or by 46·80 per cent. In the greater part of the district, however, the whole of this enhancement was not brought into force at once. In all villages in which the total increase amounted to 33 per cent. or upwards, it was reached by progressive instalments, spread over 12 years in the case of villages which had been raised from the third or fourth to the first class, or in which the assessment at the maximum rates sanctioned exceeded double of the then existing assessment, and over 8 years in other cases.

Waste lands.

144. In the Assam Valley there are and in Cachar there were large wastes which belong to Government. The following is an account of the special terms under which waste land grants are held in various parts of the province.

The first special grant rules were those of the 6th of March 1838, and related to Assam Proper only. No grant was to be made of a less extent than 100 acres, or of a greater extent than 10,000 acres. One-fourth of the entire area was to be under cultivation by the expiration of the fifth year from the date of grant, on failure of which the whole grant was liable to resumption. One-fourth of the grant was to be held in perpetuity revenue-free. On the remaining three-fourths no revenue was to be assessed for the first five years if the land was under grass, ten years if under reeds and high grass, and twenty years if under forest; at the expiry of this term, revenue was to be assessed at 9 annas per acre for the next three years, after which the rate was to be for twenty-two years Re. 1-2 an acre. At the close of this period (the thirtieth year in the case of grants of grass lands, thirty-fifth in the case of reed lands, and forty-fifth in the case of forest lands) the three-fourths liable to assessment were to be assessed, at the option of the grantee, either at the market value of one-fourth of the produce of the lands, or at the average rate of revenue paid by rice lands in the district where the grant was situated; the revenue was thereafter to be adjusted in the same manner at the end of every term of twenty-one years. Very few grants under these rules exist at present.

The next rules were those for leasehold grants of the 23rd October 1854, commonly called the Old Assam Rules. Under these rules no grant was to be less than 500 acres in extent (afterwards reduced to 200 acres, or even 100 acres in special cases). One-fourth of the grant was exempted from assessment in perpetuity, and the remaining three-fourths were granted revenue-free for fifteen years, to be assessed thereafter at 3 annas an acre for ten years, and at 6 annas an acre for seventy-four years more, making a whole term of ninety-nine years; after which the grant was to be subject to re-survey and settlement "at such moderate assessment as might seem proper to the Government of the day, the proprietary right remaining with the grantee's representatives under the conditions generally applicable to the owners of the estates not permanently settled." One-eighth of the grant was to be cleared and rendered fit for cultivation in five years, one-fourth in ten years, one-half in twenty years, and three-fourths by the expiration of the thirtieth year; and the entire grant was declared to be liable to resumption in case of the non-fulfilment of these conditions. The grants were transferable, subject to registration of transfer in the Deputy Commissioner's office. These rules were extended to Sylhet and Cachar in 1856, and were in force until 1861, when they were superseded by rules for grants in fee-simple, which at the same time allowed holders of leasehold grants under the prior rules to redeem their revenue payments, on condition that the stipulated area had been duly cleared, at twenty years' purchase of the revenue at the time payable. This permission is still in force, and has been largely taken advantage of. Two hundred and seventy-one grants, with an area of 288,206 acres, have thus been redeemed, and 36 grants with an area of 35,451 acres (most of which are in Cachar) remain upon the original terms.

To these succeeded a new policy, that of disposing of land in fee-simple. The first fee-simple rules were those issued by Lord Canning in October 1861. The Secretary of State took objection to some of their provisions, and a fresh set of rules was issued on the 30th August 1862. The rules, issued by Lord Canning, provided for the disposal of the land to the applicant at fixed rates, ranging from Rs. 2-8 to Rs. 5 per acre. The rules of August 1862 provided that the lot should be put up to auction. Grants were to be limited, except under special circumstances, to an area of 3,000 acres. In each case the grant was ordinarily to be compact, including no more than one tract of land in a ring fence. The upset price was to be not less than Rs. 2-8 an acre, and, in exceptional localities, it might be as high as Rs. 10. Provision was made for the survey of lands previous to sale, and for the demarcation of proper boundaries, where applicants for unsurveyed lands were, for special reasons, put in possession prior to survey, and also for the protection of proprietary or occupancy rights in the lands applied for. The purchase-money was to be paid either at once or by instalments. In the latter case, a portion of the purchase-money, not less than 10 per cent, was to be paid at the time of sale, and the balance within ten years of that date., with interest at 10 per cent. per annum on the portion remaining unpaid. Default of payment of interest of purchase-money rendered the grant liable to re-sale.

These rules were in force till August 1872, when the Lieutenant-Governor of Bengal stopped further grants under them, pending revision of the rules.

Revised fee-simple rules were issued in February 1874, which raised the upset price of land sold to Rs. 8 per acre, and made more careful provision for accurate identification of the land, and for consideration of existing rights and claims, before its disposal. Those rules continued in force till April 1876.

There now exist in the province 322 fee-simple grants (excluding redeemed leasehold grants already mentioned), covering an area of 58,130 *bighas*.

The existing special rules under which applications for waste lands for the cultivation of tea, coffee, and other produce which is not included among the ordinary staples of the province and which require a considerable expenditure of capital, are dealt with in Assam, were originally issued in April 1876, and were revised and re-issued under sections 12 and 29 of the Land and Revenue Regulation in 1887. The land is leased (for thirty years) at progressive rates and the lease is put up for auction sale, but only among applicants prior to its advertisement in the gazette, at an upset price of Re. 1 per acre, under the provisions of Act XXIII of 1863. The progressive rates are as follows:—

For the first two years	...	...	...	...	Revenue-free.
„ next four „	...	...	...	...	3 annas an acre.
„ „ four „	...	...	...	...	6 „ „
„ „ ten „	...	...	...	...	8 „ „
„ „ ten „	...	...	...	...	1 rupee „

After the expiration of the last mentioned term, the land is to be assessed under the laws in force, " provided that no portion of the said land shall at any time be assessed at a rate higher than that then payable on the most highly-assessed lands in the said district, cultivated with rice, pulses or other ordinary agricultural produce." The grantee is required to pay the revenue punctually on the due date; to devote the land only to the special crops for the cultivation of which it is granted,* personally to reside in the district, or have an agent residing there; to erect, and maintain in repair, proper boundary marks; not voluntary to alienate any portion of the land, unless the estate is transferred as a whole; and to give notice to the Deputy Commissioner of all such transfers. On breach of any of these conditions, the concession of the favourable rates of assessment on which the land is held is liable to be withdrawn, and the estate to be assessed at the ordinary district rates. Settlement is no longer made under these rules in Sylhet or in the plains portion of the Cachar district.

It has recently been ordered that all leases of this class which expired on the 1st April 1912, or which may expire between that date and the 31st March 1932, will be renewed up to the 31st March 1932; the rates of assessment will be annas 6 per *bigha* or Re. 1-2 an acre in the Surma Valley and Goalpara, Kamrup and Nowgong districts and in Mangaldai subdivision and annas 6-8 a *bigha* or Re. 1-4 an acre in Tezpur subdivision and the districts of Sibsagar and Lakhimpur. The conditions of the lease will be the same as before, but provisions will be added to facilitate (1) the settlement on rice lands covered by the lease of coolies to work as labourers on the tea cultivation, and (2) the resignation of compact blocks of holdings. There will also be a clause providing for payment in respect of unused timber on the grants or; portions of grants relinquished to Government.

Mention should here be made of a special tenure, compounded of the lease under the rules of April 1876 and the terms on which *ilam* land is held in the district, on which certain tea planters have been allowed to hold land for tea in South Sylhet. When the *ilam* re-settlement was in progress in this district, it was found that several planters had recently acquired considerable areas of waste land held under *ilam pattas*. One of the rules of the *ilam* settlement was that waste land within the boundaries of the *patta*, which exceeded the proportion of one-fifth of the cultivated area, should be resumed by Government. But it was precisely in order to obtain this waste land that tea planters had acquired the *ilam pattas*. A compromise was, therefore, made in 1879. The land already under tea was assessed at Re. 1-8 per acre; of the waste, an area, equal to one-fifth of the cultivated area, was allowed at 8 annas an acre and the rest permitted to be held on the terms and at the rates specified in the Waste Land Rules of 1876. The settlement of these estates, known as "modified *ilam*" estates, expired on different dates, the latest terminating in the year 1903. These estates have now been re-settled with the other *ilam* estates and will expire on the same date as the latter, *viz.*, 1922.

SECTION 5.—Civil Divisions of British Territory.

General administrative divisions.

145. The province of Assam is divided, for administrative purposes, into twelve districts, *viz.*, the six districts of the Brahmaputra Valley, the two districts of the Surma Valley, and the four hill districts. These districts, their administrative headquarters, the subdivisions into which they are divided, their area, and their population according to the census of March 1911, are shown below:—

Name of district.	Headquarters.	Subdivisions.	Area, in square miles.	Population.
1	2	3	4	5
Surma Valley.				
Cachar	Silchar ...	Silchar	1,649	339,107
		Hailakandi ...	414	131,060
		Total ...	2,063	470,167
		Carried over ...	2,063	470,167

* Under executive orders the clause in the lease, requiring the previous permission of the Deputy Commissioner before the land included in the lease is used for ordinary cultivation, is not enforced so long as the main purpose, to which the estate is put, is special cultivation.

Name of district.	Headquarters.	Subdivisions.	Area, in square miles.	Population.
1	2	3	4	5
Surma Valley—concld.		Brought forward ...	2,036	470,167
Sylhet	Sylhet ...	North Sylhet ...	864	523,931
		Karimganj ...	1,066	464,159
		South Sylhet ...	1,064	408,002
		Habiganj ...	999	597,056
		Sunamganj ...	1,450	479,523
		Total ...	5,443	2,472,671
Total Surma Valley ...	.....	.....	7,506	2,942,838
Brahmaputra Valley.				
Goalpara	Dhubri ...	Dhubri ...	2,865	443,238
		Goalpara ...	1,089	157,405
		Total ...	3,954	600,643
Kamrup	Gauhati ...	Gauhati ...	2,584	528,679
		Barpeta ...	1,274	139,149
		Total ...	3,858	667,828
Darrang	Tezpur ...	Tezpur ...	2,041	207,155
		Mangaldai ...	1,377	170,159
		Total	3,418	377,314
Nowgong	Nowgong ...	.....	3,843	303,596
		Carried over ...	22,579	4,892,219

Name of district.	Headquarters.	Subdivisions.	Area in square miles.	Population.
1	2	3	4	5
Brahmaputra Valley—concld.		Brought forward ...	22,579	4,892,219
Sibsagar	Jorhat ...	Jorhat ...	1,032	254,645
		Sibsagar ...	1,162	240,158
		Golaghat ...	3,014	195,496
		Total ...	5,208	690,299
Lakhimpur ...	Dibrugarh ...	Dibrugarh ...	3,033	369,738
		North Lakhimpur ...	1,174	99,251
		Total ...	4,207	468,989
Total Brahmaputra Valley	.....	.....	24,488	3,108,669
Hill Districts.				
Garo Hills ...	Tura	.....	3,140	158,936
Khasi and Jaintia Hills	Shillong ...	Shillong ...	3,941	157,202
		Jowai	2,086	77,867
		Total ...	6,027	235,069
Naga Hills ...	Kohima ...	Kohima ...	2,337	86,597
		Mokokchang ...	733	63,026
		Total ...	3,070	149,623
North Cachar* ...	Haflong ...	.....	1,706	27,296
Lushai Hills ...	Aijal ...	Aijal	4,701	65,215
		Lungleh ...	2,526	25,989
		Total ...	7,227	91,204
Total Hill Districts ...	.....	.....	21,170	662,128
Grand Total ...	.....	.....	53,164	6,913,635

* North Cachar is really a subdivision of Cachar, but is here shown as a separate district.

Section 4, Police divisions.

The six districts of the Brahmaputra Valley together with the Garo Hills district constitute the charge of the Commissioner of the Assam Valley Districts, whose headquarters are at Gauhati. The remaining districts of the province, under the designation of the Surma Valley and Hill Districts Division, form the charge of a second Commissioner with headquarters at Silchar.

146. There are in the province 64 thanas and 49 outposts. These areas, though they originally define police jurisdiction, are convenient for other purposes. Thus, the jurisdiction of the munsifs in Sylhet is arranged by thanas, and the registration sub-districts are similarly arranged. Muhammadan Marriage Registrars and Kazis in the Surma Valley are also appointed for thana and outpost areas.

Revenue divisions.

147. As has been already stated, the districts of the Assam Valley and the Eastern Duars are portioned out for revenue purposes into mauzas. The average area of these mauzas is 117 square miles. They thus correspond in size more with the pargana or *tappa* than with the mauza of Upper India. In Assam there is little cohesion in the village society, and hardly anything which represents the complex social organisation of the North-Western Provinces or the Punjab. Hamlets of a few houses are scattered about the whole mauza area, and though the boundaries of the lands recognised as belonging to a particular village are in some districts (*e.g.*, parts of Kamrup) known to the people they do not imply any definite appropriation of the soil to that village. Any one applying for it can settle upon Government waste land wherever situated.

In Sylhet and the plains of Cachar, as well as in the permanently-settled portion of Goalpara, the ordinary revenue division into parganas, which dates from times prior to British rule, is in force. In the two former districts, however, these parganas are very small, and much interlaced one with another. In Sylhet, there are 186 parganas, so that their average area is less than 29 square miles. Of these 15 are smaller than one square mile, and 42 are more than one and less than two square miles. In the plains of Cachar there are 24 parganas, and in Goalpara 19, the last representing separately-settled estates of the permanent settlement.

In Sylhet and Cachar these parganas are grouped into larger areas for the purposes of revenue collection. In Sylhet these areas are called zilas, of which there are ten, besides the Jaintia parganas, which latter are divided into two tahsils or collection areas. The zilas are made up of parganas, and the revenue is paid at each subdivisional headquarters for the zilas included in its jurisdiction. In the Jaintia parganas there are two collecting centres, one at Kanairghat and the other at Gowainghat. In Cachar, the plains portion of the district is divided into three tahsils, the offices of which are located at Silchar, Hailakandi, and Katigora.

In the hill districts different divisions for revenue purposes prevail. In the Garo Hills, the strip of plains land which surrounds the hill area on three sides is managed by two mauzadars, who, however, are not contractors, as in Assam, but officers on a fixed salary. The hill area is also portioned out into five mauzas; but the mauzadar here is merely the superior officer, who receives the house-tax from the *lashkars*, or Garo headmen of groups of villages. These again collect from the *lakma* or *nokma*, the head and representative of each village. There are six zamindari estates bordering the district under the management of the Deputy Commissioner. Revenue from these estates is collected by the mauzadars. Twenty-five per cent. of the total collection is retained by Government as collection charges, and the balance is paid to the respective zamindars. A portion of the Mechpara estate, called "B" Mahal is managed by the zamindars themselves, who keep 85 per cent. of the revenue, and pay 15 per cent. to the Government. In the hill mauzas, the Government share in certain villages varies from 25 per cent. to 75 per cent. of the revenue in the Karaibari estate, and from 25 per cent. to 62½ per cent. in the Mechpara "A" Mahal.

In the Khasi Hills, as already mentioned, there is not much British territory, the area being generally included in the States of the Khasi Siems, Sardars, Lyngdohs, or other petty chiefs. Only 34 villages, or groups of villages, are British, and these pay house-tax through a village headman. In the Jaintia Hills there are 19 circles of villages, each of which is managed by a *dolloi* or headman, who collects the house-tax and pays it in, receiving commission. There are besides four Sardarships, the management of which is hereditary, the headmen being Kuki or Mikir chiefs.

In North Cachar, the assessment and collection of house tax were formerly carried out by a special tahsil establishment, but this has been replaced since 1884 by mauzadars, who are remunerated by a commission of 10 per cent., and occupy much the same position as the mauzadar in the Brahmaputra Valley.

In the Naga Hills, the house-tax is collected by village headmen who receive a commission of 12½ per cent.

SECTION 6.—Details of the last Census (1911).

148. The census of 1911 was the fifth census of Assam, which in 1872, at the time of the first census of India, was included in Bengal, and at the census of 1911 was part of Eastern Bengal and Assam. The different standards of accuracy of previous censuses are discussed in Chapter II of the Census Report—briefly the census of 1872 is negligible and that of 1881 was not sufficiently supervised, but those of 1891 and 1901 are reliable. The population of Manipur in 1891 was omitted from the report of that year, because of the loss of enumeration papers in the rising, but the population of the Mokokchang subdivision of the Naga Hills and an estimate of the population of the North Lushai Hills were added. In 1901 Manipur and the whole of the present Lushai Hills district were included. At the present census an unsurveyed tract of Sema and Eastern Angami villages, the population of which amounted to 39,583, was the only addition to the area of the province.

Outlines of procedure.

149. The enumeration in 1911 was mostly synchronous, but in certain areas, where on account of the scanty population and the want of literate persons this was impossible, the counting spread over a period. In certain other places a modified form of synchronous enumeration was adopted. The synchronous system was enforced in all the plains districts (the plains mauzas of the Garo Hills included), in the Lushai Hills, in part of the Khasi and Jaintia Hills, in the Bagari and Eastern Rengma Duars of the Mikir Hill Tract in Sibsagar, and in the Manipur Valley. The modified synchronous procedure was adopted in the rest of the Khasi and Jaintia Hills, in the Mikir Hill Tract in Nowgong, in the Western and Naga Rengma mauzas of the same tract in Sibsagar, and in the North Cachar Hills. The census was non-synchronous in the hill mauzas of the Garo Hills, in Duardisa and Borjar in the Mikir Hill Tract of Sibsagar, in the Sadiya Tract and among the Sarkari Nagas of Lakhimpur, and in the hills under the Manipur State.

The whole province was divided into blocks of an average size of 38 to 40 houses in the synchronous tracts and 80 to 90 houses in the rest. In the hills under the Manipur State the average was as high as 141 houses per block. Each block was in the charge of an enumerator, and over him was a Supervisor, who was in charge of a circle consisting on an average of 11 blocks, and was subject to a Charge Superintendent who had from 14 to 20 circles to look after. The Census Officer of each district was responsible for the adequate training of these functionaries, who were unpaid except in parts of the hill districts. The Deputy Commissioner of each district exercised general control. Operations began in January 1910, when the area of each district was carefully distributed, by means of maps and local enquiries, into charges, circles and blocks. Next, all the houses were numbered, and finally the preliminary enumeration was begun in January 1911. The entries then made were mostly written on blank paper, so that the census forms might not be disfigured by the corrections made by inspecting officers, and were copied on the schedule by the end of February. On the night of the 10th March 1911, each enumerator in the synchronous tracts visited each house in his block, added to the schedule of the preliminary enumeration the names of new arrivals, and crossed out the names of persons who were absent or dead. In areas where the census was only partially synchronous, the preliminary record was brought up to date on the morning of the 11th March from the reports made by village headmen to the enumerators, who took up positions at convenient centres. In the non-synchronous areas no attempt was made to correct the preliminary record after it had been checked by inspecting officers. Special arrangements were made to deal with large assemblies at fairs, etc., and travellers by road, river or train.

Area and density of population.

150. The area of the province as shown by the last census is 61,471 square miles and the total population 7,059,857, the Manipur State accounting for 346,222 of the total population. The density is 115 to the square mile for the whole province.

In the three natural divisions of the province the density varies from 406 in the Surma Valley to 126 in the Brahmaputra Valley and 34 in the Hills. As regards particular districts, Sylhet has 459 persons to the square mile, and the Lushai Hills only 13.

	Area in square miles.	Density.
ASSAM ...	... 61,471	115
Brahmaputra Valley	... 24,598	126
Goalpara ...	... 3,954	152
Kamrup ...	... 3,858	173
Darrang ...	... 3,418	110
Nowgong ...	... 3,843	79
Sibsagar ...	... 4,996	138
Lakhimpur ...	... 4,529	104
Surma Valley ...	... 7,247	406
Cachar plains ...	... 1,859	253
Sylhet ...	... 5,388	459
Hill Districts ...	... 29,626	34
Garo Hills ...	... 3,140	51
Khasi and Jaintia Hills	... 6,027	39
North Cachar ...	... 1,706	16
Naga Hills ...	... 3,670	49
Manipur ...	... 8,456	41
Lushai Hills ...	... 7,227	13

Some at least of the causes of these variations are to be sought in history. The devastations caused in the Brahmaputra Valley by the Moamaria insurrection and the Burmese invasion left a scanty population at the time of the British annexation. Until recent years an unhealthy climate and the absence of communications, in spite of the opening up of the country by tea gardens, prevented speedy development. In the Surma Valley, Cachar and the east and south portions of the Sylhet district suffered too much from the raids of the neighbouring hill tribes to be inviting places of residence, and even now in Sylhet the greatest density of population is to be found in the centre and west of the district. In the Hills it is not so long since head-hunting was considered to be the only proper occupation of a man, while the primitive conditions of agriculture militate against a large population.

Towns and villages.

151. The province is essentially of a non-urban character. Of the entire population only 30 persons out of 1,000 live in towns, the number being 24 in the Brahmaputra Valley and 15 in the Surma Valley. The highest proportion of urban residents is found in the Hills, where the overgrown village of Imphal, the capital of Manipur, unduly swells the figure. There are 21 towns in the province, all of which, except Imphal, contain less than 20,000 inhabitants, while only 5 have a population of over 10,000. The average village of the province contains 233 persons, that of the Brahmaputra Valley having 280, that of the Surma Valley 244 and that of the Hills 138. The total number of villages is 27,875 against 22,326 in 1901. In all the plains districts except Sylhet and Goalpara the revenue village was taken as the census village, and the increase in number is due, in the plains, to the increase in population, and in the hills, both to the growth of numbers and also to the absence of warfare, and hence of the necessity for residence in large villages with a view to self-protection.

Variation in the population.

152. The increase in the population since 1901 has been 933,514 persons or 15·2 per cent., but part of this is due to the inclusion for the first time of some Sema and eastern Angami villages in the Naga Hills. Their population is 39,586 and its exclusion reduces the increase in the province to 893,928, *i.e.*, almost 14·6 per cent. The Brahmaputra Valley shows a growth of 18·7 per cent., the Surma Valley of 10·8 per cent. and the Hills of 18·5 per cent. If the Naga Hills are left out of account the largest increase was one of 30 per cent. in Goalpara. Then follow Lakhimpur with 26·3 per cent. and Manipur State with 21·7 per cent. No other district shows an advance of 20 per cent. The increase in the natural population amounts in the Brahmaputra Valley to 16·7 per cent., in the Surma Valley including North Cachar to 13·7 per cent., and in the Hills to 21·4 per cent. The large increase in Goalpara is mainly due to immigration from the neighbouring districts of Bengal, and is for the most part confined to the areas near the Brahmaputra. It is satisfactory to note that the decline in the population known distinctively as Assamese, which was so noted in 1901, has now been changed to an increase of over 11 per cent. The only district where a decrease was found is Darrang, where the northern mauzas of the Mangaldai subdivision have not yet recovered from the ravages of kala-azar.

153. Over half the population of the province are Hindus, a little more than a quarter are Muhammadans, and less than one-fifth are Animists. Hindus form over 70 per cent. of the population of the Brahmaputra Valley, 47 per cent. of that of the Surma Valley and one-quarter of that of the Hills, where more than half the population of North Cachar and Manipur have been so returned. The number of Hindus has grown by 11·9 per cent. since 1901, the rate of increase being 3·3 per cent. less than that of the general population, and they have fallen back in comparison with Muhammadans, Animists and Christians. In the Brahmaputra Valley and in the Hills the rate of increase, though about 3 per cent. less than that of the

Population by religion.	
Hindu ...	... 3,838,769
Brahmo ...	... 428
Sikh ...	... 757
Jain ...	... 2,508
Buddhist ..	... 10 513
Musalman...	... 1,901,032
Christian ...	... 66,562
Animist ...	... 1,239,280
Minor ...	... 8
Total	... 7,059,857

population as a whole, is nearly 16 per cent., but in the Surma Valley it is only 5·7 per cent. as was the case in 1901. In every district of the Brahmaputra Valley except Goalpara the proportion of Hindus has fallen owing to an increase of Animists and, to a small extent, of Muhammadans. In the Surma Valley the same phenomenon is due entirely to the expansion of the Muhammadans. In the province as a whole there are now 54 Hindus to 27 Muhammadans, while ten years ago there were 56 Hindus to 26 Muhammadans.

Muhammadans constitute more than half the population of the Surma Valley and about one-ninth of that of the Brahmaputra Valley. They are a negligible quantity in the Hills. Their predominance in the Surma Valley is due to the early conquest of Sylhet by the Muhammadans and the colonisation of Cachar from Sylhet. In the Brahmaputra Valley the Muhammadan population is mainly descended from the survivors of the Muhammadan invaders in the thirteenth century, but in Goalpara they are mostly immigrants or descendents of immigrants from the neighbouring districts of Bengal.

As might be expected, Animists are to be found mainly in the Hills, where they constitute over two-thirds of the population. They also exist along the edges of the Brahmaputra Valley, where they amount to 17 per cent. of the population. In the Surma Valley their numbers are insignificant, being slightly greater in the plains of Cachar than in Sylhet. In North Cachar and in the Manipur State they constitute less than half the population. Since the last census, Animists have increased in the province by 16 per cent., a rate nearly 1 per cent. in excess of that of the general population, and this notwithstanding a decrease in their numbers of nearly 20 per cent. in the Surma Valley. In the Brahmaputra Valley their increase is due to a certain extent to immigration, but still more to greater accuracy in the record of religions. There is an extraordinary decrease in Goalpara, where the proportion of Animists per 10,000 of the population has fallen from 2,719 to 788 on account of the conversion by one Sib Narayan Swami of large numbers of Meches to a form of Vedic Hinduism. In the Hills, where the spread of Christianity has been felt, the rate of increase among Animists is less by 1 per cent. than that of the general population.

The increase in the number of Christians since 1901 is 85 per cent., and their number is now over eight times what it was thirty years ago. The conversions are usually obtained among the Animistic tribes who have not yet felt the attraction of Hinduism. The percentage of increase is in the Brahmaputra Valley nearly 70, in the Surma Valley 54·6, and in the Hills 96·2. The community is strongest in the last named division, where there are 432 Christians in every 10,000 of the population, and is weakest in the Surma Valley where the proportion is only 9. In the Brahmaputra Valley it is 68. In the province as a whole the number per 10,000 is now 94 against 59 ten years ago and 31 in 1891. A little less than half the total number is to be found in the Khasi and Jaintia Hills, where there are now 31,257 Christians. The most successful Christian missionary society is the Welsh Calvinistic Methodist Mission, which has its headquarters in the Khasi and Jaintia Hills. Next comes the American Baptist Mission, which works in the Brahmaputra Valley and all the hill districts except the Lushai Hills. Besides these, there are the German Evangelical Lutheran Mission, the Society for the Propagation of the Gospel, and the Roman Catholic Mission.

Sex.

154. The number of females to each thousand males in Assam is 940 for the actual population, and 963 if immigrants are not reckoned. The proportion in the Brahmaputra Valley, where the statistics are much disturbed by immigration, is 913. In the Surma Valley it is 943, while in the Hills there are 1,026 females to every 1,000 males. There is an excess of females in all the hill districts except the Garo Hills, which contains a considerable plains population. Among the Hindus there are 922 females to every thousand males, amongst Muhammadans there are 930, and amongst Animists 1,022. The cause of the excess of males is not very clear, but there is no doubt that there is a high mortality of females in the child-bearing period. The fact that the females are in a majority in the Hills, where the people are not burdened with the custom of early marriage or with an unfavourable climate, supports this inference.

Marriage.

155. At first sight it would seem that in Assam there is nothing very specially noteworthy in the statistics of civil condition, at least as far as males are concerned. In England the percentage of bachelors in 1901 was 61, while in Assam it is 55; but the percentage of spinsters is only 42 in Assam against 59 in England, and we find that in Assam most of the unmarried males are under 20 and most of the spinsters under 15. Amongst males between 15 and 40, 60 per cent. are married and only 3 per

cent. of those over 40 are unmarried. Among females 27 per cent. of those aged between 10 and 15 and 80 of those aged between 15 and 40 are married, while less than 1 per cent. of those over 40 remain single. The statistics of marriage by religion show that the Buddhists are the most married and have the smallest proportion of widows and the largest of widowers, but they form only a small community and cannot be taken as typical. The greatest number of widows, 188 per mille, is found amongst Hindus, who are followed in order by Muhammadans, Animists, and Christians. There are more married women amongst Muhammadans than in any other of the main religions, and the number of spinsters is highest in the Christian community, though the Animists are not far behind. The large extent of widowhood amongst Hindus is due partly to the tender age of the brides, and partly to the prohibition of widow marriage, but these customs prevail only in the Surma Valley and in Goalpara. The preponderance of married women amongst Muhammadans arises from the fact that, like Hindus, their girls are married young, but their widows are not prevented from accepting a second partner in life. Animists and Christians are similar to Muhammadans in that they have no objection to a wife who is not a virgin, but they are differentiated by the fact that they postpone the marriage of their womenfolk until adolescence.

Infirmities. 156. As at previous censuses, enquiries were restricted to insanity, deaf-mutism, blindness, and leprosy. The number of the insane has increased since the last census, but their proportion to the total population in either sex is less than it was twenty years ago. There are now 51 males and 37 females insane per 100,000 of the people against 62 and 48 in 1891, though at the last census the numbers had dropped as low as 47 and 35. The proportion of insane is higher in the Hills than elsewhere owing to the extraordinary number so returned in the Lushai Hills. It appears from the last India Census Report that insanity was then specially prevalent in the Chin Hills of Burma and the Chittagong Hill Tracts of Bengal, both of which border on the Lushai Hills and contain kindred tribes. After the Lushai Hills comes Goalpara, where the cause is apparently the large population belonging to the Koch tribe, which seems to be more than ordinarily subject to insanity. It is doubtful how far we can accept as true the diagnosis of the average enumerator. The increase since the last census may be due to the absence of the unhealthy conditions which prevailed in the previous decade, and tended to cut short the lives of the congenitally infirm.

There has been a steady increase in the number of deaf-mutes within the last thirty years though their proportion to the total population has fallen since 1891. Within the last ten years the ratio of males afflicted has remained unchanged, but there has been a rise in the proportion of females, and it is not improbable that the variation is a sign of greater accuracy. The statistics of age show that the increase for both sexes taken together is partly due to greater care exercised at the time of enumeration and is partly real. One factor may be the absence of hardships in the last intercensal period. In the Naga Hills the proportion of deaf-mutes is over 6½ times the provincial average.

In spite of an increase of over 11 per cent. in the number of blind since 1901 the proportion of those so afflicted shows a steady decline in both sexes for the last twenty years. Blindness is not one of the more prevalent infirmities in Assam. The absence of glare, dust, poverty and overcrowding in ill-ventilated houses all contribute to this happy result. In the Hills blindness is more common than elsewhere, and the high proportion among the Garos, Nagas and Lushais would seem to be due to the absence of general cleanliness and ventilation.

Since 1891 the proportion of male lepers has been reduced by over half and that of females by nearly the same amount. This reduction practically extends over each of the natural divisions, but is especially marked in the Hills, where it amounts to nearly two-thirds of the number of males and over two-thirds of the number of females afflicted twenty years ago. In this division the decline is in part due to more accurate diagnosis and to the exclusion of leucoderma and Naga sores. It is now an accepted fact that leprosy is not hereditary, and is contagious only to a small extent. It follows that, with improved sanitary conditions, the disease should die out, and this apparently is what is happening here and elsewhere. The proportion of lepers to the total population is however still very high in Assam. How far this is due to faults in diagnosis it is hard to say, but there is little doubt that the figure returned is in excess of the facts. An examination of the statistics by castes shows that the Meche of Goalpara contain the greatest number of lepers, and that the Mikirs, Miris and

Rajbansis follow next in order. It is precisely among these castes and tribes that a correct diagnosis is least to be expected, and it may not unreasonably be concluded that the high proportional figures for Assam are due in great measure to the confusion of leprosy with other skin diseases.

157. The two main languages of the province are Bengali and Assamese. The former is spoken by 46 per cent. and the latter by 22 per cent. of the population. The number of Bengali speakers has declined by 2 per cent. since 1901 on account of the more accurate census of the language of tea coolies. The tendency of the enumerators in the Brahmaputra Valley is to class as Bengali any language spoken by immigrants. Hindi and Oriya are spoken by respectively 61 and 9 persons in every thousand of the population, and Nepali by 7. Bengali is the vernacular of the Surma Valley and of the Dhubri subdivision of Goalpara in the Brahmaputra Valley, in every other district of which Assamese is the language. Uriya is confined to tea-garden coolies. Hindi is also spoken by this class as well as by other immigrants who are unindentured. Nepali is spoken mainly by the large number of buffalo graziers who have spread all over the Brahmaputra Valley and parts of the Hills. Besides these two languages there is a very large number of dialects spoken by the Animistic tribes, both those that belong to the province and those that are imported for tea gardens. It is unnecessary to enter into a detailed description, but the figures in the margin show the distribution per mille of the population of the speakers of the main families of languages. Language.

Austro-Asiatic	...	48
Tibeto-Chinese	...	184
Dravidian	...	8
Indo-European	...	752
Minor languages	...	8
Total	...	1,000

158. At the last census, in order to establish a reasonable standard of literacy, it was laid down in the instructions that no one should be shown as able to read and write who could not write a letter to a friend and read the reply, the object being to exclude people who could merely write their names. In Assam, out of a total population of 7,059,857, 333,672 persons were returned as having reached this standard. Of these 312,919 were males and 20,753 were females. In other words in every thousand of the population there were only 47 who could read and write, and in every thousand of either sex there were 86 literate males and 6 literate females. The Surma Valley stands first with 100 males and 7 females literate per mille of the population In the Brahmaputra Valley the proportions are 85 and 5, respectively, and in the Hills 47 and 8. The last division thus takes the first place in the matter of female education. This distribution is natural in view of the conditions of each tract. The large number of immigrant coolies and persons belonging to aboriginal tribes tends to lower the proportion of literates in the Brahmaputra Valley, while the comparatively high standard of literacy in the Hills is due mainly to the progress of education amongst the Khasis, of whom a large proportion have been converted to Christianity. As in 1901, the plains of Cachar are the most advanced part of the province and are followed by the Khasi and Jaintia Hills. Sylhet and Kamrup come next with 54 literates per mille. Then follow Nowgong, Sibsagar, Lakhimpur and Goalpara. Darrang, the remaining district of the Brahmaputra Valley, stands below the Lushai Hills, where there are no fewer than 81 males per mille who can read and write. The last three in order of precedence are Manipur, the Garo Hills and the Naga Hills. The proportion of literates is highest amongst Christians, Indians who are Christians being in this respect much more advanced than their fellow countrymen. Hindus take precedence of members of the other religions. Muhammadans have generally up to recent times refused to recognise any advantage in education. Among the Animistic tribes which are usually backward, most of the literates are Christians. Education

159. The main feature of the occupational statistics of the last census was the introduction of M. Bertillon's scheme of classification, which reduced the number of groups from 520 to 169. In Assam over 75 per cent. of the people are dependent on ordinary cultivation, nearly 10 per cent. on the growing of special products, of which tea is practically the sole representative, 67 in 10,000 raise farm stock and 6 are dependent on forestry. If to these we add the proportion who extract minerals, which is 9 per 10,000, we find that 8,761 persons per 10,000 of the population are dependent on the production of raw materials. The remaining 1,239 of each 10,000 of the population are distributed as follows :—preparation and supply of material substances—762, public administration and liberal arts—184, and miscellaneous—293. In addition to the ordinary census there was a special industrial census of factories which employed a minimum number of 20 hands on the census day. Tea plantations accounted for 94 per cent. of the workers, the number being 493,483. Occupation.

SECTION 7.—Changes in the Administration.

160. On the afternoon of the 22nd August 1911, Sir Lancelot Hare, K.C.S.I., C.I.E., resigned the office of Lieutenant Governor of Eastern Bengal and Assam which he had held since the 20th August 1906. He was succeeded by Sir Charles Stuart Bayley, K.C.S.I.

Assam was throughout the year an integral part of the province of Eastern Bengal and Assam which was created in 1905. From the 1st April 1912 it again became a separate Administration, in accordance with the Proclamation of His Imperial Majesty the King-Emperor, made at Delhi on the 12th December 1911.

SECTION 8.—Frontier Relations and Feudatory States.

Feudatory States.

161. The only Feudatory States with which the Assam Administration has political relations are Manipur and the petty States in the Khasi Hills. Of the latter, sufficient has already been said in section 2 of this Chapter.

Manipur.

162. Manipur is a protected State lying between Burma on the east, the Naga Hills on the north, Cachar on the west, and the Lushai Hills and the country of the Sukte Kukis on the south. It is almost entirely a hill country, the exception being the valley of Manipur in its centre. Its area is 8,456 square miles, and its population, according to the census of 1911, 346,222. Of these, 130,093 were members of Animistic tribes, the remainder being by religion Hindu or Muhammadan, and consisting of the population of the valley of Manipur, in which is situated the capital of the State. The claim of the Manipuris to be Hindus, however, rests on no better foundation than the same claim on the part of Ahoms, Kacharis, or Tipperas (with all of whom the Manipur ruling family has intermarried); and, while their features clearly show that they belong to the Indo-Chinese stock, their language is closely allied to those of the Kuki tribes which border them on the south.*

The kingdom of Manipur first emerges from obscurity as a neighbour and ally of the Shan kinglom of Pong, which had its capital at Mogaung. The regalia of the royal family are said to have been bestowed by king Komba of Pong, who at the same time added the valley of Khambat to Manipur. In 1714 a Naga, named Pamheiba, became Raja of Manipur, and adopted Hinduism, taking the name of Gharib Nawaz. His people followed his example, and since that date have been conspicuous for the rigidity with which they observe the rules of caste and ceremonial purity. Gharib Nawaz, during his reign of forty years, was engaged in constant warfare with Burma, and this state of things continued during the reigns of his successors. Manipur was frequently invaded by the Burmese, whose last occupation of the country began in 1819. The three Manipuri princes, Marjit, Chaurjit, and Gambhir Singh, were compelled to escape to Cachar, which country, as has already been related, they occupied. With them large numbers of Manipuris emigrated, and many of their descendants, together with emigrants of later date, are still to be found in Cachar and Sylhet.

When war was declared against Burma by the British Government in 1824, and the Burmese had been expelled from Cachar, assistance in arms and money was given by the Company to Gambhir Singh in an attempt to recover possession of Manipur. In this he was successful, occupying not only the valley in which the capital is situated, but also the Kubo Valley down to the Ningthi or Chindwin river, lying to the east of the former boundaries of the State, and peopled by Shans (called Kabau in Manipuri). The treaty of Yandabu with Burma, executed in February 1826, declared (article II) that should Gambhir Singh desire to return to Manipur, he should be recognised by the king of Ava as Raja thereof.

Gambhir Singh being thus established on the throne, the levy with which he had effected the reconquest of his country was placed under the management of two British officers, and supplied with ammunition, and also with pay, by the British Government. In 1833 the British Government agreed to annex to Manipur the ranges of hills on the west, between the eastern and western bends of the Barak, giving that State the line of the Jiri and the western bend of the Barak as its boundary, on condition that the Raja removed all obstructions to trade between his State and Cachar, kept in repair the road between Manipur and British territory, and promised to assist the Government, in the event of war with Burma, both with carriage and with troops. In 1834 Gambhir Singh died, and his death was followed by the regency of Nar Singh, his minister, and a great grandson of Gharib Nawaz, on behalf of the dead

* Although the above is true of the present people of Manipur, there is some reason for believing that this territory was the road by which Hindu influence from the west was first brought to bear upon the Burmese races of the Irrawaddi Valley (see Phyyres', "History of Burma," pages 3, 4, and 15).

king's son, Chandra Kirti Singh, then one year old. In the same year, the British Government decided to restore the Kubo Valley to Burma, the Government of which had never ceased to remonstrate against its separation from that conntry. The valley was given back, and a new boundary laid down in the presence of British Commissioners by an agreement, dated the 9th January 1834, and at the same time the British Government bound itself to pay a monthly stipend of Rs. 500 to the Raja of Manipur in compensation for his loss. In 1835 the assistance formerly given to the Manipur levy was withdrawn, and a Political Agent was appointed to reside at Manipur.

In 1844 the Queen Dowager, widow of Gambhir Singh and mother of Chandra Kirti, attempted to poison Nar Singh, the Regent. Her attempt failed, and she fled from the country with her son. Nar Singh then assumed the *raj* in his own name, and ruled till his death in 1850. He was succeeded by his brother Debendra Singh; but this prince ruled for only three months, Chandra Kirti Singh, with the help of Nar Sing's three sons, succeeding in ejecting him and recovering possession of the throne. This was followed by some disorder in the State; but in February 1851 the Government of India decided upon recognising the succession of Chandra Kirti Singh, guaranteeing the *raj* to him and his descendants, and preventing, by force of arms if necessary, any attempts by rival chiefs to dislodge him.

In 1851 Debendra Singh's and Nar Singh's sons attempted a rising. In 1852 another attempt occurred, led by Kanhai Singh, son of Marjit, Gambhir Singh's brother. In 1857 some of the rebellious sepoys from Chittagong, who had found their way to Cachar, were used by one Narendrajit, a younger son of Chaurjit, to raise a disturbance. Narendrajit was transported. In 1859 Maipak, a descendant of Gharib Nawaz, invaded the valley, but was defeated and fled. In 1862 he again, in conjunction with another Rajputra, named Khaifa Singh, headed an attack, and penetrated to the Raja's palace, where he was captured. Kanhai Singh made another attempt in 1865, when his followers were attacked and dispersed by British troops and police. Another raid was perpetrated by Gokul Singh, a younger son of Debendra Singh, in 1866. His enterprise failed, like the rest, but he escaped for the time. He was captured in 1868, tried in Cachar, and sentenced to seven years' imprisonment.

In the Naga war of 1879 the Maharaja of Manipur distinguished himself by rendering loyal assistance to the British Government. He furnished a force, which, under the leadership of the Political Agent, Colonel (afterwards Sir James) Johnstone, raised the siege of Kohima by the Nagas, and prevented a great catastrophe. In recognition of this service, the Government of India bestowed upon Maharaja Chandra Kirti Singh the dignity of K. C. S. I. Another series of events, which gave occasion for much correspondence, was the raids of certain Kukis known as Chasads on the eastern frontier of Manipur territory. It was believed that these raids were abetted by the Shan Tsawbwa, or chief of Samjok in the Kubo Valley, and, as there was much indefiniteness in the frontier north of the Kubo Valley Proper as set forth in the agreement of 1834, it was determined by the Government of India to send a Commission to define and demarcate the boundary of Manipur in this direction. This task was accomplished in the cold weather of 1881-82, and the Burmese Government (who were invited to co-operate in the demarcation, but did not do so) were informed that the boundary so laid down would be maintained by the Government of India. The raiding Kukis, who were favoured in their enterprise by the uncertainty of the frontier, were found to be settled within Manipur territory, and some of them were induced to move further in, and were thus brought under stricter control.

On the death of Chandra Kirti Singh, in 1886, Bara Chauba, the eldest son of Nar Singh, who had been Maharaja from 1834 to 1850, made an attempt to get possession of the *gadi*, but was eventually defeated by a detachment of the Cachar Military Police, after which he gave himself up, and was deported, with his relatives, to Hazaribagh.

The rising of 1890.

In 1891 this little State suddenly sprang into notoriety in consequence of the outbreak which occurred in March in that year. In 1890 Sura Chandra was driven from the palace by the Jubraj and took refuge with the Political Agent. Contrary to the Agent's advice, he declared his intention of abdicating, and left Manipur for Brindaban. On reaching British territory, however, he repudiated his abdication and claimed the aid of the Government of India. It was decided to confirm the Jubraj as Raja, but the Chief Commissioner was instructed to remove from Manipur the Senapati, or Commander-in-Chief, who had instigated the revolution. In March 1891 Mr. Quinton, the Chief Commissioner, proceeded with an escort to Manipur and ordered the Senapati to appear before him. The Senapati refused to do so, and when troops were sent into the palace enclosure to effect his arrest, they were fiercely attacked by the Manipuris. The engagement continued till the evening. An

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armistice was then agreed to, and the Chief Commissioner and four other officers were induced, under promise of safe conduct, to go unarmed to a durbar in the palace. No agreement being found possible, they started to return, but the crowd closed in, and one of the party was fatally wounded by a spear-thrust. The Chief Commissioner and his companions were then kept prisoners for two hours, after which they were beheaded by the public executioner in front of two stone dragons. The attack on the Residency was resumed, and the defenders, thinking it untenable, retreated to Cachar. A month later, Manipur was occupied by British troops and the persons implicated in the outrage were arrested. The Senapati and some others were executed, and the new Raja and his brothers were transported for life.

The future of the State had then to be considered, and it was eventually decided by the Government of India to regrant the State and to place upon the throne a youth named Chura Chand, a scion of a collateral line. This boy was sent for six years to be educated at Ajmir, and during his minority the administration of the State was conducted by the Political Agent. Numerous reforms, including the introduction of better judicial tribunals, the improvement of the land revenue administration, and the abolition of the system of *lalup*, or forced labour, etc., were effected. The boundaries between Manipur and Burma and the Chin and Lushai Hills were laid down, steps were taken to disarm the hill tribes and trade has been much stimulated, first by the construction of a cart-road from Kohima to Imphal, and subsequently by the opening of the Assam-Bengal Railway to Dimapur. Only one serious raid has occurred in Manipur territory during recent years, and that was in 1893, when a combination of Kuki villages surprised a village of Khoirao Nagas, against whom they professed to have a grievance, and killed 99 men and 187 women and children.

The Political Agent in Manipur was till 1879 only partly under the control of the Chief Commissioner, with whom he corresponded only in regard to matters connected with Assam and its frontier. In that year he was made directly subordinate to the Chief Commissioner. On the regrant of the State in 1891, his designation was changed to "Political Agent and Superintendent of the State."

On the 15th May 1907, the Superintendency came to an end and the administration of the State was made over to the Raja and the Darbar. The Raja was formally installed on the *gadi* on the 4th February 1908. The administration of the State is now conducted by the Darbar, consisting of the Raja as President, a Vice-President, who is a member of the Indian Civil Service and whose services are lent to the State by the Local Administration, three ordinary and three additional members, who are all Manipuris. The various departments are in charge of the President, the Vice-President and the three ordinary members, the Vice-President having the management of the hill tribes living within the State entirely in his own hands and being responsible for all matters of revenue and finance. The administration of justice is in the hands of the Darbar assisted by the subordinate courts of the *chirap* and the *panchayat*. The Darbar is the highest court in the State. It tries all criminal cases which are beyond the powers of the *chirap*, and hears appeals, both criminal and civil, from the orders of that court. The Darbar may pass sentences of death or imprisonment for life, but sentences of over five years' rigorous imprisonment must be reported to the Political Agent, who, if he sees fit, may refer the case to Government for orders. Sentences of death require the confirmation of the Local Administration. The *chirap* court tries all civil cases above Rs. 100 in value, and has powers in criminal cases to inflict punishment up to two years' rigorous imprisonment, or a fine of Rs. 500, or whipping, or any two or more of these punishments. The *panchayat* court tries all disputes of a civil nature not exceeding Rs. 100 in value and all criminal offences of a minor degree. The maximum fine which the court can inflict is Rs. 100. It can inflict no other kind of punishment.

Frontier States and Tribes.

163. The frontier States and tribes which adjoin the province of Assam, commencing at the north-west corner, are the following:

(1) Bhutan.
(2) Bhutias subject to Tibet.
(3) Independent Bhutias.
(4) Akas.
(5) Dafias.
(6) Apa Tanangs.
(7) Miris.
(8) Abors.
(9) Mishmis.
(10) Hkamtis.
(11) Singphos.
(12) Nagas.

South of the Naga territory, a portion of which is included in the British district of the Naga Hills, comes the Manipur State, and south and west of Manipur, adjoin-

ing the southern boundary of Cachar and a portion of Sylhet, is found the country of the Lushais, now forming a British district. West of the Lushai Hills and south of Sylhet lies the State of Hill Tippera.

Bhutan.

164. Although this State adjoins Assam to the north of the districts of Goalpara, Kamrup, and Darrang, as far east as the Doisham river, no official intercourse other than complimentary interviews with local officials is kept up.

On the conquest of Assam, the northern portion of Kamrup, consisting of the Bijni, Chappakamar, Chapaguri, Banska, and Garkalia Duars, was found in possession of Bhutia chiefs, who paid a tribute of Rs. 3,049 yearly to the Assam Rajas. To the east of the Bornadi the two Duars of Khaling and Buriguma were held by the Bhutias for eight months of the year, and by the Assam Raja for the remaining four (the rainy season). The payment of tribute by the Bhutia Jongpens during the first fifteen years of our rule was very irregular, and the frontier was continually harassed by dacoities and outrages perpetrated on our subjects, which necessitated frequent armed reprisals. At last, in 1841, it was determined (since the possession of these tracts by the Bhutias was of recent date) to resume the Duars, and bring them under British management, paying to the Bhutan Government an annual sum of Rs. 10,000 as compensation for their loss. This sum was regularly paid until the outbreak of the Bhutan war in 1864, when it was stopped, and the seven Assam Duars (as well as the five Eastern Duars north of Goalpara, by name Guma, Ripu, Chirang, Sidli, and Bijni, and the seven Western Duars north of Koch Bihar) were finally annexed to British territory. At the same time the Fort of Dewangiri, which commands the passage down to the bazars of Kamrup, was occupied and retained as British territory.

The Bhutias come down during the cold weather for pasture and trade into the north of Kamrup and western Darrang, but few of them appear to visit the thinly-peopled submontane tract of Goalpara. Most of their trade is done at Subankhata, Kumori, Kata, and Genbari in the Kamrup district south of Dewangiri, and at Ghagrapara in Darrang. There are a few Bhutia settlements in British territory at the foot of the hills, but their condition is not very prosperous, and they seem to be a survival of the old days of Bhutia supremacy, rather than the beginning of a more extended immigration.

From time to time there have been complaints of high-handed conduct on the part of the Bhutias, who take advantage of the timorous nature of the villagers to force upon them chillies and salt and extort in exchange large quantities of rice and other articles. Military police outposts are maintained during the cold weather at Udalguri in Darrang, and at Darranga in Kamrup to prevent these exactions and give confidence to the people.

Bhutias subject to Tibet.

165. The Bhutias of the Kuriapara Duar, which lies east of Bhutan Proper and extends from the Doisham to the Rota river, are dependent upon Towang, which is a dependency of the Government of Lhassa. The chiefs of this Duar, called the Sat Rajas, used, like their neighbours of Bhutan Proper, to levy dues from the inhabitants of the adjoining plains. In 1844 their claims were bought out by the British Government on payment of an annual sum of Rs. 5,000. Our relations with these people since the composition of 1844 have only once been disturbed. In 1852 one of the Gelengs, or Tibetan officials appointed from Lhassa to supervise the local chiefs, having some misunderstanding with his superior, fled to British territory. His surrender was peremptorily demanded by the authorities of Lhassa, and a Tibetan army moved towards the frontier. A British force was assembled at Udalguri, with two guns. But no hostilities actually occurred. The Tibetans retired, the fugitive Geleng was removed to Gauhati, and the Duar was re-opened for trade. This pass is specially interesting, as it is the only place in many hundred miles of Himalayan barrier where the British power is in actual contact with Tibet. The hillmen, including Tibetans from the higher ranges, resort in considerable numbers, during the cold weather through this Duar to the annual fair at Udalguri, which lies due south of the gap through which the Dhansiri river issues from the hills.

Independent Bhutias.

166. Next to these Bhutias subject to Towang come the Sat Rajas of Charduar, chiefs who live at villages called by the people of the plains Rupraigaon and Shergaon. They claim to be independent of Towang, and rule the face of the hills from the Rota to the Diputa rivers. The Thebengia Bhutias are a distinct race, and live several days' journey within the hills, but they used, in conjunction with the Sat Rajas, to levy contributions from the people of the adjacent plains. From 1839 to 1844 these people were excluded from the plains by the British Government, in punishment for outrages committed by them. On their submitting and executing a formal agreement to refrain from aggressions, they received annual pensions,—the Shergaon

and Rupraigaon Bhutias of Rs. 2,526-7 a year, and the Thebengia Bhutias of Rs. 45-13-6. They come down annually to receive their pensions at Tezpur. They also hold an annual fair at a place beyond British territory, in the gorge of the Belsiri river, called Daimara, where some trade is done with the people of the plains, which is registered by a police post at the boundary pillar on the frontier.

Akas.

167. Next to the Bhutias come the Akas, who occupy the Sub-Himalayan region as far east as the issue of the Khari-Dikarai river. This tribe is divided into two sections, called by the Assamese the Hazarikhoas and the Kapaschors.* The former received a *posa*,† or stipend, from the Assam Rajas, and the latter levied contributions without having any such title. Both tribes are believed to be very limited in number; but to the north of them is an allied race called the Mijis, of whose strength nothing certain is known. Though small, however, this tribe has a great reputation for violence and audacity. For many years Tagi Raja, the chief of the Kapaschor Akas, gave us much trouble by his robberies and murders in the plains. In 1822, he was captured and lodged for four years in the Gauhati Jail. In 1832, he was released in the hope that he had learnt a lesson and would be quiet in future; but he immediately resumed his attacks, and in 1835 massacred all the inhabitants of the British village and police outpost of Balipara. For seven years after this he evaded capture, his tribe remaining outlawed in the hills. At length, in 1842, he surrendered, and it was decided to use his influence with the other chiefs to secure the peace of the border. An agreement was made, under which the Kapaschor Aka chiefs receive Rs. 520 a year as pension. The Hazarikhoas receive a pension of Rs. 180. Both tribes have certain small areas of land in the plains allotted to them for cultivation. The Kapaschors threatened in 1875 to give trouble, claiming an extensive tract of forest and other land on the Bhareli river, which was cut off by the demarcation of the boundary in 1874-75. Nothing further occurred at the time, and the new boundary was quietly accepted.

This dispute, however, coupled with one or two other grievances of a very minor nature, is believed to have been the cause of the acts of aggression which resulted in the expedition of 1883-84. In October 1883, Lakhidhar Mauzadar, who had visited the village of Medhi, the Kapaschor Aka chief, to ask him to supply articles for the Calcutta Exhibition and to send down a man and a woman to be modelled there, was forcibly detained, and shortly afterwards Medhi's brother, Chandi, carried off a clerk and forest ranger from Balipara. A punitive expedition was despatched and Medhi's village was occupied, the Akas taking refuge in the jungle. They gave up their captives (except Lakhidhar, who had died) and sent in some rifles and other articles which they had carried off; but the chiefs themselves did not come in before the departure of the troops, which took place only fourteen days after their arrival, and appears to have been somewhat premature. The expedition was followed by a blockade of the frontier, which was maintained until 1888, when the Aka chiefs appeared before the Deputy Commissioner and tendered their submission. Since that time they are reported to have been well behaved and contented.

Daflas.

168. Next to the Akas come the Daflas, who, with the Hill Miris and the Abors occupy the whole of the rest of the sub-Himalayan hills until the Mishmi country is reached. These three races speak languages which are said to be mutually intelligible, and they are evidently, though differing in arms and style of dress, nearly akin. The Daflas and Miris were, like the Akas, in receipt of *posa*, or pensionary allowance under the Assam Government, as a condition of their refraining from aggression on the northern tracts of Darrang and Lakhimpur, and these allowances have been continued by the British Government. There are two divisions of the Daflas, one called the Paschim or Western Daflas, and the other the Tagin Daflas, who live to the east of these.

The Daflas committed frequent raids prior to 1852 when the *posa* question was finally settled, but since then they have seldom broken the peace. In 1870 and 1872 raids were committed by Tagin Daflas, not with the object of plundering alien inhabitants of the plains, but in pursuit of tribal quarrels. As a punishment for these raids a

* The first of these names probably indicates that a thousand *gots* of *paiks*, or individual groups of revenue-payers, was set aside to provide a stipend for the tribe: *khoa* (eater) is the usual Assamese termination, indicating that a person is supported from the revenues of any place or people. *Kapaschor* means cotton-thief, this class of Akas being famous for their night attacks, in which they lurked in the cotton-fields with a primitive sort of dark lantern, waiting their opportunity.

† The word *posa* or *pacha* (পছা) literally means a collection or subscription for a common purpose; it is probably connected with the word *panch* (five), and recalls the Mahratta *chauth*, or fourth. The word is still well understood in this sense in Upper Assam. In its special sense of payment to a hill tribe, it strictly denotes the subscription which the village raised in order to meet the customary demands of their visitors from the hills, in other words blackmail. It is not properly applicable to a fixed stipend, paid, as in these cases, by Government in accordance with treaty; but it has now come to include such stipends.

blockade was instituted. This proved ineffectual and a military force was sent into the hills. The Daflas offered no active opposition and in the end surrendered their captives. Again in 1910 it proved necessary to despatch a small Military force to Dafla territory to exact reparation for raids on the camps of elephant catchers in the plains of Darrang and Lakhimpur. Daflas have settled in considerable numbers as Government raiyats.

Miris.

169. The name Hill Miri has been given to the inhabitants of the country watered by the Subansiri and Kamla rivers and their affluents. Until recently little was known of this race, and its representatives, who visit the North Lakhimpur Subdivision and receive an annual allowance, have always proved quiet and inoffensive. During the cold season of 1911-12 a friendly mission penetrated these hills and gained some information of the remoter villages.

The Hill Miris are to be distinguished from the Miris of the plains whose origin appears to have been in the Abor country, where they are supposed to have stood in a servile relation to the present inhabitants, to avoid which they have settled in large numbers in Upper Assam as British subjects. In the plains they still preserve their customs of building houses on piles, and of cultivation by *jhum*. They are expert and fearless boatmen, and always settle on the banks of a river. Retaining their own language among themselves, they also speak Assamese, to which is due the name by which they are known in Assam (Miri, or Mili, meaning go-between or interpreter), as they used to act as a channel of communication with Abors of the hills. The total number of Miris settled in Assam is 57,792, of whom all except about 5,000 are found in Sibsagar and Lakhimpur.

The Apa Tanangs.

The Apa Tanangs or Ankas occupy the fertile valley of the Kali river lying over 5,000 feet above sea-level and within five days' march of the North Lakhimpur Subdivision. A population of approximately 15,000 is massed in a few large villages. Alone of the tribes in their neighbourhood they practise the cultivation of rice on irrigated land, and of late years a brisk trade has sprung up with the plains. In 1896, to punish a raid, an expedition was sent to this country. No resistance was offered. The captives were surrendered and since then the behaviour of the tribe has been good.

Abors.

170. The term Abor, which means in Assamese an independent, remote, and unknown savage, is applied somewhat loosely to a number of tribes and clans, who occupy the hill east of the Miris as far as the Dibong river. They are divided into two principal groups,—Passi Minyong Abors west of the Dihong, and the Bor Abors or Padams between the river and the Dibong, while several Abor settlements have been founded in the plains. These tribes bear a very different character from the Miris, and the want of population on the north bank of the Brahmaputra from opposite Dibrugarh to Sadiya is chiefly due to dread of their raids. Murders and outrages committed by them on Government raiyats, in some cases close to the headquarters station of Dibrugarh, have led to several punitive expeditions. In 1858 one was sent to punish the massacre of a Bihia village by the Bor Minyong Abors, but was not successful in its object. In 1859 a second expedition was sent, and met with better fortune. In 1861 another massacre of Bihias, a few miles from Dibrugarh, on the south side of the Brahmaputra, occurred. This was followed by preparations for establishing a line of outposts along the north bank of the Brahmaputra, connected by a road, to guard against such attacks in future. The Abors appear to have been impressed by these operations. They made overtures, which were responded to, and a meeting took place in November 1862 between them and the Deputy Commissioner. A treaty was arranged with eight communities of the tribe, promising them, on condition of good behaviour, an annual allowance of iron hoes, salt, rum, opium and tobacco. Later, in November 1862 and in January 1863, some other powerful villages made similar agreements. The last concluded was made with the remaining communities in April 1866. All these agreements recite that the British territory extends to the foot of the hills. The allowance to the tribe is paid at the Darbar held annually at Sadiya ; but on several occasions the Abors have held sulkily aloof, and have not presented themselves at the Durbar.

In 1881 it was apprehended that certain villages of Abors, who had expressed an intention to cross the Dibong river and settle upon the hills beneath those occupied by the Chulikata Mishmis, would carry their hostilities with the latter tribe into British territory, and cut them off from access to Sadiya. The execution of this plan was prevented by the despatch of a mixed force of troops and police to occupy the post of Nizamghat where the Dibong river issues from the hills north of Sadiya, and another lower down, opposite the Abor village of Bomjur.

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In 1889 two Minyong villages combined to decoy four British subjects, Miris beyond the Inner Line, where they murdered them, the object apparently being to establish a claim for *posa*. A fine of 20 *mithans* was imposed upon them, and the whole of the Passi and Minyong Abor frontier was blockaded pending payment The fine was paid in less than a year. In 1893 the Abors east of the Dihong broke into open revolt. In November of that year three Military Police sepoys, while patrolling on the frontier, were waylaid and killed, it was believed, by Bebejiya Mishmis acting on the instigation of the Bor Abors, and in the following month another police party were attacked and one sepoy killed and one wounded, this outrage in this case being committed by some of the Bor Abors themselves. An expedition which was sent into their country occupied their principal villages after encountering a good deal of resistance, and as a further punishment blockade was imposed against the tribe in 1893, and was only withdrawn in 1900.

Relations with the Abor tribes showed signs of becoming closer, but in March 1911 Mr. Williamson, the Assistant Political Officer of Sadiya, accompanied by Dr. J. D. Gregorson, proceeded by invitation on a tour among the Minyong villages. The party was well received in the earlier stages of the journey, but, while Mr. Williamson was in Komsing, he was treacherously attacked, and he and all his party, except five of the coolies who made their escape through the jungle, were massacred. Dr. Gregorson and some sick coolies who had been left encamped a short distance back were also murdered. Information was speedily forthcoming to show that the massacre had been pre-arranged, and that all the Minyong villages were involved in the crime. A force of Military Police from the Lakhimpur Battalion advanced to Pasighat which was held during the rains, as it was impossible to advance in strength into the hills at that season. In the cold weather of 1911-12 a military expedition under the command of Major-General Bower, C.B., visited the Abor Hills, and exacted reparation for the murders. A considerable measure of survey and exploration was also done, and subsequently the consent of His Majesty's Secretary of State was obtained to the establishment of a measure of loose political control over these hills.

Mishmis.

171. The Mishmis, who occupy the hills from the Dibong to the Brahmakund in the north-eastern corner of the valley, are divided into three principal tribes, called respectively the Chulikata or crop-haired Mishmis, the Taiyeng or Digaru Mishmis, and the Miju Mishmis. Of recent years a smaller tribe known to the Assamese as the Bebejiya Mishmis, who inhabit the valleys of the Ithun and Ithu rivers, to the north-east of the Chulikatas, have come into prominence.

The Chulikata Mishmis were for a long time regarded as a particularly dangerous and hostile tribe, having, on several occasions, attacked Hkamti settlements in the neighbourhood of Sadiya, but it has since been ascertained that many of the outrages attributed to them were really committed by Bebejiyas. A blockade was imposed upon both the Chulikatas and the Bebejiyas in 1893, as they were believed to have taken part in the outrages committed by the Abors. In May 1899, a party of Bebejiya Mishmis raided the small hamlet of Mitaigaon in British territory, and murdered most of the inhabitants. A military expedition entered the Bebejiya country in 1899, but failed to secure any of the murderers, or to inflict any adequate punishment. One of the murderers was subsequently surrendered, and hanged at Sadiya. In July 1905 three British subjects were murdered by Bebejiyas near the Dikrang blockhouse, and it was suspected that this outrage was perpetrated to avenge the execution of the Mitaigaon murderer. The surrender of the murderers was demanded, but, as the demand was ignored, the Bebejiyas and the Chulikatas were both blockaded the following cold weather. The blockade was not finally removed until 1912.

It is reported that the Chulikatas own the land on both banks of the Dibong from Nizamghat up to the watershed of the river, and also a considerable extent of territory on the plains side of the Nizamghat gorge. They formerly owned all the country in that quarter as far as the Sisseri river, but were driven eastward by the Abors, to whom the Chulikatas on the right bank of the Dibong are now more or less subject. The tribal name of the Bebejiyas is Mithun, and that of the Chulikatas Midun. Although the two tribes are reported to resemble one another strongly in manners and customs and to speak the same language, the Chulikatas disdain all connection with the Bebejiyas, who, they say, are of Digaru origin. The Chulikatas are active traders and resort in considerable numbers to the fair at Sadiya. A good many Bebejiyas also traded with Sadiya before the blockade of 1893. It would appear that neither of these tribes is really so ill-disposed towards us as was formerly believed, and that many of the outrages which have been traced to them were acts of revenge for which a good deal of provocation had been given by our Hkamti subjects.

The Digaru Mishmis are a quiet, inoffensive people, and act as guides to pilgrims to the sacred gorge of the Brahmaputra known as the Brahmakund. In 1851, M. Krick, a French missionary, made a successful journey through the Miju country to the frontier of Tibet, and back to Assam, but in 1854, when he again visited Tibet with a colleague, M. Bourry, both were murdered on their return journey by a party of these Mishmis under a chief named Kai-i-sha.' This outrage was avenged in February 1855 by an expedition under Lieutenant Eden, who with 20 Assam Light Infantry and 40 Hkamti volunteers, reached Kai-i-sha's village, stormed it, and took the murderer prisoner. In December 1885, Mr. F. J. Needham, Assistant Political Officer at Sadiya, accompanied by Captain E. H. Molesworth, Commandant of Military Police, and three police orderlies, succeeded in penetrating through the Miju Mishmi country and entering the Tibetan province of Zayul.

During the cold weather of 1911-1912 a friendly mission, following the route taken a year or two before by the late Mr. Williamson, travelled through the Miju country up the Lohit Valley to within a short distance of Rima. A large amount of valuable survey was done.

The Digaru Mishmis carry on trade with Sadiya, while the Mijus have little or no intercourse with Sadiya, but trade with the Tibetans of Zayul. The Digarus, on the other hand, are believed to have little direct intercourse with Tibet. None of the Mishmi tribes receive any *posa*, nor do formal treaties or agreements with them exist.

Hkamtis.

172. The Hkamtis settled about Sadiya have already been mentioned in paragraph 73 of this report. They are immigrants from the Shan State beyond the Patkoi range, formerly tributary to Burma, and known to the Assamese as Bor Hkamti. They are of the same race as the Ahoms, but differ from the latter in being Buddhists. They are a literary and cultivated people, and much more civilised than any of their neighbours. They first settled in Sadiya during the latter part of the eighteenth century. When the Burmese were expelled from Assam, the Hkamti Gohain, or chief of Sadiya, executed an agreement of allegiance to the British Government, and Sadiya was selected as the residence of the Political Agent in Upper Assam. In 1839, after the death of the Hkamti chief, with whom we made the agreement, the Hkamtis of Sadiya suddenly rose, and massacred the Political Agent, Colonel White, and many of his guards and attendants. A war followed, ending in the transportation of the Hkamti chief's son and his followers to a distant part of British territory. In 1843 some chiefs of this race were again allowed to settle about Sadiya, and in 1850 a new immigration from Bor Hkamti took place. The Hkamtis living about Sadiya and Saikwa are British raiyats, and pay revenue. Those living on the Tengapani beyond the Inner Line acknowledge allegiance to the British Government, but pay no revenue. The last census showed 1,868 Hkamtis to be resident in Assam.

Phakials and Turungs.

173. The Phakials, or Phake, are said to have left Mogaung for Assam about 1760A.D., immediately after the subjugation of that province by Alomphra. Colonel Hannay tells us that, prior to their immigration into this province, they were resident on the banks of the Turungpani, and were thus apparently near neighbours of the Turungs. On reaching Assam, they at first settled on the banks of the Buri Dihing, whence they were brought by the Ahoms, and settled near Jorhat. When the Burmese invaded Assam, the Phakials and other Shan tribes were ordered by the Burmese authorities to return to Mogaung, and they had got as far as their old settlement on the Buri Dihing when the province was taken by the British. Their language closely resembles that of the other northern Shans. Like the Hkamtis and Turungs, they are Buddhists. They seldom marry outside their own community, and, as this is very small, their physique is said to be deteriorating. They are adepts in the art of dyeing.

The Turungs immigrated into the province less than seventy years ago. Their own tradition is that they originally came from Mungmang Khaosang on the north-east of Upper Burma, and settled on the Turungpani, whence the name by which they are now known. While there, they received an invitation from the Noras, who had preceded them and settled near Jorhat, and in consequence they started across the Patkoi *en route* for the Brahmaputra Valley. They were, however, taken prisoners by the Singphos and made to work as slaves, in which condition they remained for five years. They were released by Captain Neufville, along with nearly 6,000 Assamese slaves, in 1825, and continued their journey to the Jorhat subdivision, where they are still settled.

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Singphos.

174. The Singphos, who live intermixed with the Hkamtis on the New and Old Dihings, the Tengapani, and the mountains beyond, are, like the latter, but an outlying branch of the main population of the same race who occupy in force the hilly country between the Patkoi and Chindwin river, where they are nominally subject to Burma. To the Burmese they are known as *Kakhyens*, and *Singpho* is but the word in their language meaning "man." They are, apparently, from what is known of their language, related to the Naga tribes in their neighbourhood, to whom, however, they stand distinctly in the position of masters and superiors. Where brought in contact with the Hkamtis, they have borrowed something of the civilisation and outward appearance of the latter, and have also in some cases been converted to Buddhism. They are, however, probably quite distinct by race.

The Singphos are recent arrivals in Assam, having made their appearance at the head of the valley during the troubles of Raja Gaurinath Singh with the Moamarias about 1793. It was through their country that the Burmese invaders passed into Assam in 1818 and 1822, and the ravages of the Singphos, added to those of the Burmese, contributed greatly to the depopulation of the Matak country and Sibsagar. When Assam was conquered from the Burmese, the chiefs of the Singphos, after several engagements with our troops, tendered their allegiance, and entered into agreements not to disturb the peace of the frontier. Great numbers of Assamese slaves, who had been carried off by them in the early years of the century, were released, and the wealth and power of the tribe were in this manner much reduced. In 1839 they joined the Hkamtis in their attack on Sadiya; but by 1842 they had again been brought to acknowledge their subjection. Many of the Singpho immigrants, with whom agreements were made in 1826, have since retired across the frontier into Hukong.

The Duanias, or Singpho-Assamese half-breeds (so called from Assamese *duan* = language, because they act as interpreters), are the offspring of intercourse between these slaves and their captors. They are chiefly settled along the Buri or Old Dihing, and are quiet subjects.

The now universal habit of opium-eating is believed to have contributed largely to the present pacific attitude of the Singphos and Hkamtis. The chiefs of the Singphos and Hkamtis meet annually at the full moon of *Magh* (in the end of January or beginning of February) at Sadiya to present themselves, with the chiefs of the Mishmi and Abor tribes, before the Assistant Political Officer, who receives their offerings, and gives them in return small presents. They pay no revenue except where settled within the Inner Line.

Nagas.

175. The tribes known to the Assamese as Nagas stretch uninterruptedly from the Patkoi along the southern frontier of the Lakhimpur and Sibsagar districts, to the valley of the Dhansiri and North Cachar. Of the Nagas in the British district of the Naga Hills (the Angamis, Kacha Nagas, Rengmas, Semas, Lhotas, and Aos) mention has already been made. Until 1904 political control was exercised by the Deputy Commissioner of the Naga Hills over an area inhabited principally by Angamis and Semas. In that year this area was regularly included in the Naga Hills district, as was also a strip beyond to the east and south of the district. A few years later a small tract of country east of the Dikhu river was formally annexed. From the Tirap river eastward to the Patkoi, the Nagas are completely in subjection to the Singphos. West of this point begins a succession of groups of villages known to the Assamese by the names of the passes or Duars through which their inhabitants resort to the plains,—as the Namsangias, Borduarias, Paniduarias, Mithonias, Banpheras, Jobokas, Bhitarnamsangias, Jaktungias, Tablungias, Assiringias, etc. The outer tribes of this region are in constant communication with the plains, and in the times of the Assam Rajas used to make annual offerings of elephants' tusks and other such articles. They do a considerable trade in cotton and other hill produce, and carry back large quantities of salt and rice. The inner tribes, known to the Assamese as *Abors* or wild men, are kept from access to the plains by these outer or *Bori* (subject, civilised) Nagas, who thus keep the carrying trade in their own hands. These outer Nagas also come down in considerable numbers to labour in tea plantations and on roads during the cold weather. Unlike the Angamis, Aos, and Lhotas, who are democratic in their social economy, many of the eastern Nagas appear to acknowledge the authority of Rajas and minor chiefs among themselves.

With the internal affairs of these people we hardly meddle at all; but they are prohibited from carrying their quarrels into the settled British territory, and, if they do so, are tried and punished by our courts. On this frontier, a system prevails by which the Nagas of each group have allotted to them certain Assamese Agents, called *kotokis*, who manage small plots of revenue free land called *Naga khats*, on behalf

of the tribes. When the attendance of the chief in the hills is required for any purpose, he is summoned through the *kotoki*. If satisfaction for robberies and other outrages is not in this way obtained, the Duar or pass through which the tribe visits the plains is blocked, and no one is allowed to come down or go up. This system has rarely failed to secure reparation, and, on the whole, the conduct of the Nagas on this frontier has been peaceable and quiet, so far as the settled lands of the plains are concerned. Among themselves, however, their feuds are incessant, and are only composed to break out anew. The easternmost tribes of Borduarias and Namsangias have thus been prosecuting a quarrel for over fifty years, each group taking, when it can, the lives and heads of some of the others. With these feuds it has not been our policy to meddle, though attempts have occasionally been made to mediate between contending tribes.

Hill Tippera.

176. With the State of Hill Tippera this Administration has no direct relations. All communications for the Raja are forwarded through the Government of Bengal. The State is coterminous with Sylhet, along the whole of the southern border of that district, and considerable intercourse takes place up and down the valleys of the rivers which flow northwards from the Tippera Hills. The Raja's boundary was laid down on this side by a joint Commission in 1865-66. The Raja is the zemindar of considerable estates in Sylhet, and is to that extent subject to our revenue jurisdiction.

The Inner Line.

177. The Inner Line is a boundary which, in accordance with the policy to which effect was given by Regulation V of 1873, has been laid down in certain districts as that up to which the protection of British authority is guaranteed, and beyond which, except by special permission, it is not lawful for British subjects to go. The Inner Line Regulation was the result of much correspondence between the Government of Bengal and that of India on the subject of frontier policy. It was believed that many complications were caused by permitting persons from the plains to penetrate into the hills or submontane forests inhabited or frequented by wild tribes, where no effective protection could be given by Government, and where disputes relating to buying and selling frequently occurred. At the time the Regulation was passed the great demand and competition for India-rubber brought down by the hillmen gave special prominence to these considerations; and it was decided that the best way to prevent such complications was to stop, as far as possible, the access of strangers to tracts where adequate control could not be exercised. An Inner Line has been laid down in the following districts:—In Darrang, towards the Bhutias, Akas, and Daflas; in Lakhimpur, towards the Daflas, Miris, Abors, Mishmis, Hkamtis, Singphos, and Nagas; in the Sibsagar Subdivision of the Sibsagar district, towards the Nagas. The Inner Line formerly maintained along the Lushai border has since 1895 been allowed to fall into desuetude. The line is marked at intervals by frontier posts held by Military Police and commanding the roads of access to the tract beyond; and any person from the plains who has received permission to cross the line has to present his pass at these posts.

SECTION 9.—Relation with Tributary States and Frontier Affairs.

FEUDATORY STATES.

MANIPUR.

178. [Tribute:—Rs. 50,000 annually. Population (1911) 346,222. Gross revenue (average for last five years).—Rs. 463,367. Military:—224 Military Police. Products:—Rice, *dal*, vegetables, rubber, wax, tea-seed and other forest products, ponies, cattle and buffaloes. Manufactures:—Cotton cloth, silk cloth, brass, and other metal utensils, a few articles of ivory and jewellery, some leather work and coarse salt. Minerals:—Iron, limestone, copper and salt, but iron and copper are not worked.

Raja.—His Highness Raja Chura Chand Singh, aged 26 years; caste Kshatriya. The Raja by his second wife, Rani Chingakhom Sayama Sakhi, has two sons, the first aged about four years and the second about two years, two daughters by his first wife, Rani Ngangbom Dhanamanjuri Ibemacha and a daughter by his third wife, Rani Ngangbom Preo Sakhi.]

General.

During the year 41 unlicensed guns and 3 licensed guns were confiscated. There were at the end of the year 941 licensed guns in the State.

Hill Tribes.

The conduct of the Hill Tribes was generally satisfactory, and the Kukis in the unadministered Somra tract gave no trouble.

Administration of the land revenue.

During the year 3,422 *bighas* of waste land were taken up for cultivation and petitions for the relinquishment of 3,841 *bighas* were received. The current demand of the year was Rs. 3,16,875 and the percentage of collection 97 62. The total arrears at the end of the year amounted to Rs. 8,990. The number of revenue cases for disposal rose from 4,319 to 5,568, the increase being probably due to the increased value of land on account of the high price of rice. The Jirighat settlement continued to make satisfactory progress. According to the recent survey there are 14,346 *bighas* of settled lands. Some 300 new settlers came during the year while the old settlers improved and extended their holdings.

The current demand of house tax was Rs. 70,111 as against Rs. 69,869 in the preceding year. House tax was levied at the same rate as in former years, namely, Rs. 3 on all houses in the hills and annas ten on all Nagas and Kukis cultivating land in the Valley or in Jiribam.

Production and Trade.

The rainfall of the year was normal and the outturn of rice in the valley good, although in places the crop was somewhat damaged by insects. There was, however, an almost complete failure of the rice crop in the villages of the south-west hill tracts which are chiefly Kuki. Scarcity first manifested itself in the Kuki villages near the Lushai border, in the latter part of October 1911, and thence rapidly spread to the north and east. The failure of the crop was due to the ravages of rats, attracted in the first instance by the seeding of the wild bamboo. In November 1911 arrangements were made with traders of Lakhipur (Cachar) for the supply of rice to the hill men on credit from their depôts on the Barak river and near Jirighat. In January 1912 similar arrangements were made with shop-keepers at Imphal and Moirang. Subsequently, 5,000 maunds of rice were purchased by the State from Silchar merchants and distributed to the affected villages. Nothing approaching an actual state of famine occurred, as the people were able to eke out their supply of rice with edible roots obtained in the jungle, until the millet and maize ripened. The crops in the north-west hills also failed partially, but the distress in that area was not acute.

The Manipur Company, Limited, proved unable to work its silk venture at a profit. In spite of the advantageous terms of land tenure offered to the raiyats last year, conditionally on their putting down mulberry, only 314 *bighas* of new land were taken up for this purpose. Weaving is a considerable industry in Manipur, but the attempt to introduce improved hand looms has not as yet produced any noticeable result. Only 10 women attended the weaving school to work under the two instructresses trained last year.

During the year 108,086 maunds of rice, 3,741 cattle (including buffaloes) and 114 ponies were exported.

The terms of the lease of the copper mine on the Burma border have not yet been finally settled.

Finance.

The gross total revenue of the State was Rs. 5,18,626, as against Rs. 4,95, 526 in the preceding year. The receipts from land revenue increased by nearly seven thousand rupees. A prosperous year resulted in smaller remissions and a higher percentage of collections.

The export taxes on rice and cattle realised Rs. 27,000 against Rs. 22,000 in 1910-1911.

Receipts under the head "Hill Tribes" increased by over four thousand rupees principally on account of a higher demand consequent on the greater number of recorded houses. The revenue from fisheries also increased by more than eight thousand rupees.

There was a fall in the income from forests on the Cachar border, which forms the bulk of the revenue under the head "Forests." The scheme for the preservation and proper working of these forests is still under the consideration of Government. Receipts under the heads "Law and Justice" and "Excise" decreased.

The total expenditure was Rs. 5,46,795, as against Rs. 4,56,863 in the previous year, the large increase being mainly due to the Delhi Durbar and the water-works. In spite of these extra expenses, the reserve was depleted to the extent of only Rs. 28,169, the closing balances on the 31st March 1911 and the 31st March 1912 being, respectively, Rs. 3,31,125 and Rs. 3,02,956.

Sanitation.

The water-works for Imphal were not completed, owing to the delay caused by the Contractors. Considerable progress was, however, made with the scheme.

Education and Miscellaneous.

There were no changes in the educational arrangements. The cost to the State of education was on all accounts Rs. 36,135 compared with Rs. 33,140 in the preceding year.

The Veterinary Assistant treated 2,207 animals. The Veterinary dispensary proved a decided success.

FRONTIER TRIBES.

179. The principal event of the year was the despatch of a military expedition under the command of Major-General Bower, C.B., into the Abor Hills to avenge the murder of Mr. Williamson and the party with him. Friendly Missions at the same time visited the Mishmi and the Miri Hills.

Bhutias. The usual fair was held at Darranga. A slight increase in trade was reported. *Posa* amounting to Rs. 5,000 was distributed to the Bhutia Gallengs at the annual Durbar at Udalguri, and the Charduar and Thebengia Bhutias received their *posa* amounting respectively to Rs. 2,526-7-0, and Rs. 145-13-6 in Tezpur.

Akas. 180. The Hazarikhoa and Kapaschor Akas received their *posa* amounting to Rs. 164 and Rs. 536, respectively, and exchanged the usual presents with the Deputy Commissioner.

Daflas. 181. Owing, it is said, to the existence of scarcity in the hills on the Darrang Frontier more Daflas than usual came down to receive their *posa*. There was little to complain of in the behaviour of the Daflas. Several Dafla villages on the Lakhimpur Frontier were visited by the Miri Mission and a coolie who had been kidnapped and detained as a slave for about a year was released. The man who detained the coolie was sentenced to a year's imprisonment and the *posa* of the village concerned has been stopped. Ten Daflas were allowed to settle within the Inner Line. The Daflas who bring firewood into North Lakhimpur were required to take out permits under the rules of the Forest Department.

Miris and Apa Tanangs. 182. The account of the Miri Mission dealt at some length with the Apa Tanangs and the Hill Miris.

Abors. 183. Our relations with the Abors are dealt with in the various accounts of the Abor Expedition. As usual a certain number of slaves escaped to the plains, and these were, except for special reasons, made to pay suitable ransoms to their former masters.

Mishmis. 184. The conduct of the various Mishmi tribes is dealt with in the account of the Mishmi Mission. The blockade which was in force against the Bebejiyas for five years for a murder committed by some of them has, since the close of the year, been withdrawn.

Hkamtis. 185. The Hkamtis gave no trouble, but on the contrary were of great assistance in helping to clear the road along which the Mishmi Mission marched.

Singphos. There is nothing to report about these people.

Nagas. 186. The Barduarias, Namsangias and Bormithunias were well-behaved, and parties came down as usual in the cold weather to cut jungle on tea gardens.

Naga Hills. The year was uneventful, and no trans-frontier expedition was undertaken. The guard which was posted at Melomi in the cold weather of 1909-1910 was withdrawn. Our relations with the independent tribes on the borders of the district were friendly. Across the frontier raiding, head-taking and the burning of villages were as frequent as ever. No progress was made in the administration of the newly annexed tract of country to the east of the Dikhu, but sanction was given to the construction of a suspension bridge over the Dikhu river, and a road from Tamlu through the newly acquired territory into the Sibsagar district.

Garo Hills. 187. The Garos were quiet and well-behaved during the year.

Lushai Hills. 188. The year was uneventful politically. Proposals for demarcating the southern boundary beyond Sherkor were approved.

Khasi and Jaintia Hills. 189. The year was uneventful politically. The Siems generally behaved well.

SECTION 10.—Condition of the People.

See Report on the Land Revenue Administration of Assam for the year 1911-12.]

Condition of the people.

190. The general conditions of the year were on the whole favourable to cultivation although the rice crops suffered from floods, insects and rats in certain localities. The outturn of winter rice was good throughout the Assam Valley Division but was below the average in the Surma Valley. In the Lushai Hills and the adjacent country bamboos seeded and died after some 30 years, causing a plague of rats which fell upon and destroyed the standing crops. The outturn of mustard and jute was fair and the year was a prosperous one for tea.

The condition of the cultivating and labouring classes was fairly good in all districts except the Lushai Hills, where scarcity of a severe type occurred owing to the damage caused by rats to the food-crops. Gratuitous relief in rice and agricultural advances, amounting to about Rs. 1,45,440, were granted in order to meet the situation. In Kamrup and Darrang a remission of land revenue, amounting to Rs. 6,499, was sanctioned on account of the damage caused to crops by floods. The wages of labourers remained high throughout the year as in the previous year, while the prices of the principal food-stuffs fell to some extent.

The migration of Muhammadan cultivators from Eastern Bengal continued. Many Santhals migrated from the districts of Jalpaiguri and Cooch Behar and settled in the Eastern Duars of Goalpara and a large number of cultivators from Mymensingh, Cachar and Sylhet have settled in Nowgong.

CHAPTER II.—ADMINISTRATION OF THE LAND.

SECTION 1.—Realisation of the Revenue.

[*See* Report on the Land Revenue Administration of Assam for the year 1911-12.]

191. An account of the total demand and collection of land revenue will be found under Chapter V, "Revenue and Finance."

During the year there was an addition of 11·5 square miles to the revenue-paying area and the revenue demand rose from Rs. 68,56,899 to Rs. 69,37,552.

The incidence of revenue per square mile at the end of 1911-12 was Rs. 571·98, as compared with Rs. 565·37 in the previous year.

Permanently-settled estates.

192. There were at the close of the year 49,901 permanently-settled estates, covering an area of 6,141·22 square miles, with a revenue demand of Rs. 3,76,546. With a solitary exception, all the permanently-settled estates lie in the districts of Sylhet and Goalpara. The exception is a small estate of this class which falls within the jurisdiction of the Garo Hills. The revenue of the estates in the Garo Hills and Goalpara was collected in full during the year without resort to coercive measures. In Sylhet, where the estates are generally very small and contain a large number of separate accounts, the percentage of current collections on current demand fell from 75·31 to 74·40, while the percentage of arrear collections showed a slight improvement.

Temporarily-settled estates.

193. The total area of temporarily-settled estates rose from 3,392,760 acres to 3,419,331 acres and the revenue assessed from Rs. 61,76,111 to Rs. 62,52,802; current collections showed a slight improvement, but the year closed with an arrear demand which exceeded that of the previous year by Rs. 65,224. The colonisation by Santhals, Nepalese and other settlers of the Eastern Duars of Goalpara made rapid progress, the area settled with them being 13,099 acres as against 6,998 acres in the preceding year. Under special settlements, there was an increase of 1,631 acres in area and of Rs. 1,909 in revenue. The expansion of cultivation in the Nambor forest is still very slow.

Hill districts.

194. In the hill districts there were 12,694 estates with a total revenue demand of Rs. 68,568. The total collections decreased from Rs. 47,560 to Rs. 45,631 during the year.

Remittances of revenue and local rates by special money-orders.

195. The system of remtting revenue and local rates by money orders through the post office is in force in Sylhet only. The number of such money orders rose from 3,091 to 3,258 during the year, while the amount covered by them fell from Rs. 11,013 to Rs. 9,680.

Coercive means employed for the collection of land revenue.

196. The number of notices of demand issued under the Assam Land and Revenue Regulation decreased by 4,345. There was also a decrease in the number of cases in which property was attached, but the number of cases in which property was sold was greater.

Serving of process.

197. The total number of processes served and the value of the process-fees realized during the year were 181,667 and Rs. 1,27,235, respectively, against 167,917 and Rs. 1,17,096 in the preceding year. The cost of the process-serving establishment increased by Rs. 1,947, partly owing to the revision of ministerial establishments and partly to the amalgamation of the civil and revenue nazarats. The total sum realised from process-fees, however, exceeded the cost of the establishment by Rs. 67,101.

Miscellaneous land revenue (including hill districts).

198. The total miscellaneous land revenue demand for the year was Rs. 6,35,815 and the total aggregate collections amounted to Rs. 6,22,599 as against Rs. 6,01,658 in the previous year.

Loans.

199. No loans were made during the year under the Land Improvement Loans Act. The loans given out under the Agriculturists' Loans Act amounted to Rs. 3,88,271, and, out of a total debit of Rs. 4,88,188 outstanding, Rs. 76,369 were recoverable during the year. Of this amount, Rs. 47,613 were actually recovered, leaving a balance of Rs. 4,40,575 at the close of the year.

Other revenue work.

200. The reclamation of the area improved by the opening of Moamarijan and other channels in the north of Kamrup still continues. A sum of Rs. 8,339 was sanctioned for the repairs of the Kharoi *bund* in the Gohpur mauza of the district of Darrang.

ADMINISTRATION OF THE LAND.

201. The number of mutation cases which were disposed of locally by summary procedure fell from 39,868 to 37,913 during the year. The district of Cachar alone is responsible for the decrease which is partly attributed to the Land Records staff having been engaged in census operations and partly to a decrease in the number of transfers. The number of cases dealt with in court rose from 8,093 to 9,206.

Land registration.

Partitions.

202. Omitting summary partitions effected on the spot under Rule 203 of the Assam Land Records Manual, there were 244 applications for partition made during the year against 208 in the previous year. Out of a total of 432 cases for disposal, 236 were disposed of during the year.

SECTION 2.—Surveys and Settlements.

[*See* Reports on the Survey and Settlement Operations in Assam for the year ending 30th September 1912.]

203. The programme in the Lakhimpur district comprised the skeleton survey of 122 tea grants, but owing to the extreme difficulty of locating the grants there still remain, so far as is known at present, 32 grants to be surveyed in order to complete this district.

In addition, thirteen other surveys, mostly linear relaying work, were executed in the several districts of Assam.

At a conference held in Shillong on June 10th, 1912, a number of questions relating to survey administration in the province were considered and upon most of them the Chief Commissioner has already passed orders. It is hoped that it will now be possible to rearrange the systems of the past and to place survey work generally upon a really sound basis.

204. The Shillong Drawing office printed 41,632 copies of village maps for Assam, and, in addition, carried out a great deal of work for other Departments of Government. Owing to the territorial changes which came into force from the 1st April 1912, it is impossible to give actual figures for miscellaneous work, as previous to that date separate figures were not kept for Eastern Bengal and for Assam work.

205. In paragraph 48 of the Eastern Bengal and Assam General Administration Report for 1910-11, the question of survey education was mentioned. It has since been decided to institute a central school for land-surveying education at Gauhati, and to place it under the Director of Surveys.

206. The most important work engaging the attention of the Settlement Department was the resettlement of the Lakhimpur district. The resettlement operations, which were started in November 1908, were brought to a close during the year under review, and resulted in an increase of 11·43 per cent. in the revenue assessed on ordinary cultivation in the district. The area covered by the proceedings amounted to 709 square miles and the nett cost of the operations to Rs. 1,94,557.

207. The resettlement of Dibrugarh town was undertaken in March 1912 and was still under progress at the end of the year.

208. In Cachar the leases of 57 *jangalburi* mahals, covering an area of a little over 4 square miles, fell in and were resettled by the Deputy Commissioner with the assistance of the ordinary Land Records staff.

209. In Sylhet the resettlement of 2,450 petty scattered estates, covering an area of 31½ square miles, which were not dealt with during the last Ilam Settlement, has been in progress since February 1908. There has been undue delay in completing the resettlement of these estates, but the work is now being pushed on vigorously and should be finished by the end of the next field season.

210. Extension surveys were carried out by local agency in 6 districts, the actual area surveyed being 27 square miles.

SECTION 3.—Land Records.

Land Records.

211. During the year under report 19 additional mandals, 1 in Kamrup, 2 in Sibsagar and 16 in Lakhimpur, were entertained, the number actually employed being 1,170, and an additional Kanungo was sanctioned for the Lakhimpur district. The Land Records staff in Sylhet was revised and redistributed among subdivisions.

SECTION 4.—Settlements for special cultivation (Waste Lands).

[*See* Report on the Land Revenue Administration of Assam for the year 1911-12.]

Settlement for special cultivation.

212. The total area settled for special cultivation was 1,136,259 acres, the revenue demand thereon being Rs. 6,82,785. There was increase of 12,727 acres in area and of Rs. 16,886 in revenue over the figures of the previous year, due respectively to new settlements and progressive assessments. The increase in area occurred chiefly in the districts of Sylhet, Darrang and Lakhimpur.

SECTION 5.—Government Estates.

Nil.

SECTION 6.—Wards' Estates.

[*See* Report on the Land Revenue Administration of Assam for the year 1911-12.]

Revenue, rent and cesses.

213. There were altogether five estates under the management of the Court of Wards, *viz.*, the Prithimpasa, Kumar Gopika Raman Roy, Golam Rabbani, Pallakandi and Ilias Ali Khan estates, all of which are in the district of Sylhet. No new estate was taken under the management of the Court of Wards, nor was any estate released during the year.

The total revenue and cess demand, including an arrear demand of Rs. 294 due to Government, was Rs. 21,621. Payments amounted to Rs. 21,457 or 100·6 per cent. on the current demand, as compared with 96·8 per cent. in the preceding year. Payments on account of rent and cesses to superior landlords were made in full.

Collections.

214. The total demand on account of rents and cesses due to all the 5 estates, including an arrear demand of Rs. 2,38,273, amounted to Rs. 5,02,534; of this sum Rs. 2,12,827 or 80·5 per cent. on the current demand, as against 95·4 per cent. in 1910-11, were collected and Rs. 38,789 remitted as being barred or otherwise irrecoverable. Excepting the estate of the late Maulvi Golam Rabbani Chaudhuri, the collections in all the estates were bad and the balances unduly large. The balance outstanding at the close of the year amounted to Rs. 2,50,918 or 94·9 per cent. on the current demand against 97·1 per cent. in the previous year.

Debts.

215. The total debts, excluding Government revenue and cesses, due from all estates at the close of the year was Rs. 7,18,048, of which the estate of Kumar Gopika Raman Roy is alone responsible for Rs. 6,48,605. During the year debts amounting to Rs. 2,73,919 were paid off. Of this sum Rs. 2,72,590 were paid by the Kumar and Golam Rabbani estates, the money being principally obtained from loans contracted on favourable terms.

Management charges and improvements.

216. Management charges rose from 12·2 to 14·7 of the current demand, due to the change in the system of management introduced during the year, by which all the estates were placed under a European General Manager with an Assistant for each estate under him. The Prithimpasa estate is the only estate which was able to afford a liberal expenditure on schools, dispensaries and other works of utility. The education of the minor wards was carefully attended to.

SECTION 7.—Revenue and Rent-paying classes.

[*See* Report on the Land Revenue Administration of Assam for the year 1911-12.]

Material condition of the people.

217. The condition of the cultivating and labouring classes was fairly good in all districts except in the Lushai Hills, where scarcity of a severe type prevailed owing to the damage caused by rats to the food crops. The wages of labourers ruled high throughout the year as in the previous year, while the prices of the principal foodstuffs were lower than in 1910-11.

CHAPTER III.—PROTECTION.

SECTION I.—Legislative Authority.

Eastern Bengal and Assam Legislative Council.

218. On the creation of the province of Eastern Bengal and Assam a Legislative Council was established by a Proclamation of the Governor General of India in Council, published in the *Gazette of India* under Notification No. 2832, dated the 1st September 1905. The provisions of the Indian Councils Act, 1861, regarding the making of Laws and Regulations in Madras and Bombay, were extended to the province, and the Lieutenant-Governor was authorised to nominate fifteen Councillors for legislative purposes, the nominations to be subject to the sanction of the Governor General. The Proclamation was declared to take effect from the 16th day of October 1905, but the Council was not actually formed until 1906.

By Regulations made under the Indian Councils Act, 1892, which were published on the 16th October 1905, it was provided—

(1) that not more than seven of the fifteen Members should be officials;

(2) that nominations to six seats should be made on the recommendation of the Commissioners of the Port of Chittagong, of such local bodies (Municipal Corporations and District and Local Boards), and of such associations of landholders, merchants, manufacturers and tradesmen as the Lieutenant-Governor might from time to time prescribe by notification in the *Eastern Bengal and Assam Gazette*; and

(3) that the remaining seats reserved for non-official members should be filled by persons nominated by the Lieutenant-Governor, in such a manner as would, in his opinion, secure a fair representation of the different classes of the community.

The same Regulations made it a condition that the persons, recommended by the Municipal Corporations and by the District Boards, must be local residents.

No change was made until the 15th November 1909, when the Indian Councils Act, 1909, was brought into operation. This Act provided that the Legislative Council should contain in addition to members nominated in the manner provided by the Indian Councils Acts, 1861 and 1892, members elected in accordance with regulations made under the Act. The maximum number of members, nominated and elected, of the Legislative Council of Eastern Bengal and Assam was fixed at fifty, but the actual strength of the Council was forty members, made up as follows:—

A.—Eighteen members to be elected by the classes specified below—

(i) The Commissioners of the Port of Chittagong.

(ii) The Municipal Commissioners.

(iii) The District and Local Boards.

(iv) The Landholders.

(v) The Muhammadan Community.

(vi) The Tea Interest.

(vii) The Jute Interest.

B.—Not more than twenty-two members to be nominated by the Lieutenant-Governor, with the sanction of the Governor General, of whom—

(*a*) not more than seventeen might be officials, and

(*b*) one had to be a non-official person to be selected from the Indian Commercial Community.

In addition, the Lieutenant-Governor was permitted to nominate two more persons, either official or non-official, having expert knowledge of subjects connected with proposed or pending legislation. It was further provided that the majority of all the members of the Council might not be officials.

The province was represented on the Imperial Legislative Council by three members elected respectively by—

(i) the non-official Members of the Council;

(ii) the Landholders of the province;

(iii) the Muhammadans of the province.

The province had also a nominated official representative.

Under section 5 of the Indian Councils Act, 1909, rules were framed for the discussion of the annual financial statement and of matters of general public interest, and amended rules under sections 37 and 48 of the Indian Councils Act, 1861, for the conduct of business were also framed. The right to put supplementary questions was conceded. The term of office of members was extended from two to three years, but a member elected to fill a casual vacancy could sit only for the unexpired portion of the outgoing member's term.

Assam Legislative Council.

219. After the re-constitution of Assam as a separate province a Legislative Council was established by a Proclamation of the Governor General of India in Council, published in the *Gazette of India* under Notification No. 2642, dated the 14th November 1912. The provisions of the Indian Councils Acts, 1861 to 1909, were extended to Assam, and by a notification of the Government of India, published under Notification No. 2643, dated the 14th November 1912, it was proclaimed that the territories administered by the Chief Commissioner were, for the purposes of the Indian Councils Act, 1861, constituted a province to which the provisions of that Act touching the making of Laws and Regulations for the peace and good government of the Presidencies of Fort St. George and Bombay should be applicable. The 14th day of November 1912 was declared to be the time at which the application of the said provisions of the Indian Councils Act, 1861, to the said territories should take effect.

Regulations made under the Indian Councils Act, 1909, and published on the 23rd November 1912, provide that the Legislative Council of the Chief Commissioner of Assam shall ordinarily consist of—

A.—Eleven members to be elected as follows :—

	Members.
(i) By the Municipal Commissioners	2
(ii) By the Local Boards	2
(iii) By the Landholders	2
(iv) By the Muhammadan Community...	2
(v) By the Tea-planting Community	3

B.—Thirteen members to be nominated by Government, of whom not more than nine may be officials.

In addition one more person, whether official or non-official, having expert knowledge of subjects connected with proposed or pending legislation, may be nominated as a member. The Chief Commissioner is restricted from nominating so many officials that the majority of all the members of the Council shall be officials.

The province is represented on the Legislative Council of the Governor General of India by two members, one of whom is elected by the non-official members of the Assam Legislative Council, while the other is a nominated official.

The Council has full powers to make laws for the peace and good government of the province, but is debarred, under section 43 (read with section 48) of the Indian Councils Act, 1861, from dealing, without the previous sanction of the Governor General, with any law for any of the following purposes :—

(1) affecting the public debt of India, or the customs duties, or any other tax or duty now in force and imposed by the authority of the Government of India for the general purposes of such Government ;

(2) regulating any of the current coin, or the issue of any bills, notes or other paper currency ;

(3) regulating the conveyance of letters by the post office or messages by the electric telegraph within the province ;

(4) altering in any way the Penal Code of India, as established by Act of the Governor General in Council, No. XLV of 1860 ;

(5) affecting the religious rites and usages of any class of His Majesty's subjects in India.

(6) affecting the discipline or maintenance of any part of His Majesty's Military or Naval forces ;

(7) regulating patents or copyrights ; or

(8) affecting the relations of the Government with foreign Princes or States.

Laws passed by the Assam Council will be styled "Acts," and will have no validity until the assent of the Governor General has been obtained, and such assent has been signified to, and published by, the Chief Commissioner. Such laws may be disallowed by the Crown, or may be repealed or amended by an Act or Regulation of the Governor General.

Acts of the Governor Generals. Council.

220. In addition to the power of making Laws conferred on the Assam Legislative Council, there are three other ways in which measures of legislation may be brought into force in the province. The first is the ordinary method, common to the whole of India, of passing Acts in the Council of the Governor General for making Laws and Regulations.

Regulations under 33 Vic., Ch. 3, sec. 1.

221. The second is the method of passing Regulations in accordance with the provisions of 33 Victoria, Chapter 3, section 1 (an Act to make better provisions for making Laws and Regulations for certain parts of India, and for certain other purposes relating thereto). This Act has, by resolution passed by the Secretary of State for India in Council, been extended to the districts of Kamrup, Darrang, Nowgong, Sibsagar, Lakhimpur, Cachar and Goalpara, the Garo Hills, the Khasi and Jaintia Hills, and the Naga Hills. Under its provisions the Local Government has power "to propose to the Governor General in Council drafts of any Regulations, together with the reasons for the same, for the peace and government of territories under its jurisdiction." Such drafts, when approved by the Governor General in Council, and after they have received the assent of the Governor General, are published in the *Gazette of India*, and thereupon have the force of law.

Extension under section 5 of the Scheduled Districts Act.

222. The third method is to make use of section 5 of Act XIV of 1874 (The Scheduled Districts Act), which declares that "the Local Government, with the previous sanction of the Governor General in Council, may, from time to time by notification in the *Gazette of India*, and also in the Local Gazette (if any), extend to any of the scheduled districts, or to any part of any such district, any enactment which is in force in any part of British India at the date of such extension." The districts of Assam are scheduled districts under the Act (Schedule I, Part X), and the Act was declared to be in force in them by a notification dated the 7th November 1877. Since that date, numerous Acts in force in other parts of India have, under the powers given by section 5, been brought into force in Assam.

Parliament

223. Lastly, Parliament retains power to legislate for Assam in common with other British possessions.

SECTION 2.—Course of Legislation.

224. *Acts.*—The following Acts were extended during the year to the places noted against each:—

The Bengal Vaccination Act, 1880 (V of 1880), to the Dhubri, Goalpara, Gauhati, Nowgong, Dibrugarh and Sylhet Municipalities:

Section 144 of the Code of Criminal Procedure (Act V of 1898) to the North Cachar subdivision of the Cachar district, the Garo Hills, the Khasi and Jaintia Hills, the Dibrugarh Frontier Tract in the Lakhimpur district, the Naga Hills, the Mikir Hills Tract in the Nowgong district and the Lushai Hills district:

The provisions of Part IX of the Bengal Municipal Act, 1884 (III of 1884), to the Goalpara Municipality:

The Eastern Bengal and Assam Court of Wards (Amendment) Act, 1911 (I of 1911), to the districts of Sylhet, Cachar (excluding the North Cachar subdivision), Goalpara, Kamrup, Nowgong, Darrang, Sibsagar and Lakhimpur.

The provisions of the Glanders and Farcy Act, 1899 (XIII of 1899), as amended by the Glanders and Farcy Law Amendment Act, 1910 (XII of 1910), in respect of Glanders, Farcy and Surra were extended to the districts of Nowgong and Lakhimpur.

Sections 22, 23, 38 (2) and 40 of the Chin Hills Regulation, 1896 (Regulation V of 1896), were extended to the North Cachar Hills, the Garo Hills, the Khasi and Jaintia Hills, the Dibrugarh Frontier Tract in the Lakhimpur district, the Naga Hills, the Mikir Hills Tract in the Nowgong district and the Lushai Hills district.

SECTION 3.—Police.

MILITARY POLICE.

Strength.

225. The Lushai Hills and Naga Hills Battalions were slightly below their sanctioned strength, while the Lakhimpur Battalion, although short of one Havildar, had 21 sepoys above the actual sanctioned strength.

226. In both the Lakhimpur and Lushai Hills Battalions drill was satisfactory, while the General Officer Commanding the Assam Brigade in his annual inspection much appreciated the work and efficiency of the Naga Hills Battalion. The Abor expedition and the Mishmi and Miri Missions prevented the inter-battalion shooting competition from taking place, and interfered to some extent with the examination of signallers; but this interruption of the usual course of training will be more than outweighed by the valuable experience gained. Efficiency in drill.

The behaviour of the men in the various battalions was satisfactory and only one serious breach of discipline occurred.

227. In 1910 the chief feature was the increse in the number of resignations. There was a marked decrease during the year under review. This is attributed largely to the military operations of the year, as the greatest keenness to go on active service was shown. In the Lakhimpur Battalion alone resignations fell from 36 to 6. Casualties.

228. Health in all the battalions improved materially during the year, and the daily average number of sick in hospital decreased. In the Naga Hills Battalion malaria gave much less trouble, but the Commandant reports that a good deal still remains to be done to improve the sanitation of the lines at Kohima. In spite of the heavy duties that fell to the Lakhimpur Battalion, there was a marked decrease in sickness. Health.

229. In January 1911 Colonel A. E. Woods, Deputy Commissioner of the Naga Hills, accompanied by Captain Molesworth as Intelligence Officer, took a column consisting of one native officer and 101 rifles, under the command of Major Bliss and Captain Hardcastle, to co-operate with a column from Burma in punishing the independent Makware tribe for a raid on Mangmo, a village in British Burma. The two forces met at Chunasani, and reached Makware on the 31st January. The village was ultimately burned. Military operations.

A force of one native officer and 80 rifles under the command of Captain Hamilton left Kohima on the 30th January to escort Mr. Needham, the Subdivisional Officer of Mokokchang, on a visit to some villages across the Dikhu. It proved necessary to burn the independent village of Chinlong. The column returned to Tamlu without loss.

The operations rendered necessary by the murder of Mr. Williamson and his party threw very heavy work on the Lakhimpur Battalion in particular and on the Military Police generally. Immediately on receipt of the news of the outrage a moveable column of 125 men, under the command of Captain Dunbar, moved with commendable promptitude to Pasighat, and from that time onwards this place and Balek, in its vicinity, were garrisoned by detachments of Military Police taken from the Lakhimpur and Naga Hills Battalions. Officers and men alike acquitted themselves well both in the initial advance to Pasighat and in the subsequent operations. Special mention must be made of Captain Hutchins whose death, while on the Abor Expedition, was deeply regretted by the whole force. It was intended that a composite battalion, seven hundred strong, of Military Police from the various battalions should form one unit in the expeditionary force which penetrated the Abor Hills under the command of Major-General Bower, but in the end only three officers and three hundred men of the Lakhimpur Battalion were so employed. The Mishmi Mission had to be provided with an escort consisting of 200 Military Police from the Naga Hills Battalion and 150 from the Dacca Battalion, while the Naga Hills Battalion supplied in all 150 men for service with the Miri Mission. The Police employed on the Abor Expedition and the two Missions all acquitted themselves well.

230. Non-commissioned officers and men were permitted to draw advances of pay when proceeding on leave, and the Inspector-General of Police was authorised to grant to non-commissioned officers and men leave for more than six months. Miscellaneous.

CIVIL POLICE.

231. The sanctioned strength of the force rose from 3,160 to 3,226, effect being given gradually to the sanctioned scheme for the reorganization of the subordinate police. These figures do not include the Criminal Intelligence Department of the province of Eastern Bengal and Assam. An additional force of 6 Head Constables and 41 constables was employed at the expense partly of Government and partly of the individuals at whose request their services were given. No additional police were employed on account of any area having been declared under the Police Act to be in a disturbed and dangerous condition. Strength and Cost.

The total cost of the Department (Military Police included) during the year 1911 was Rs. 19,26,849, as compared with Rs. 18,78,846 in 1910. The increase was principally due to the Dafla expedition, and the Mishmi and Miri Missions.

PRO-TECTION.

The Reserves.

232. Armed reserves were sanctioned for the districts of Darrang and Sibsagar, but, owing to the want of trained and suitable men, in Sibsagar the formation of the reserve proved impossible during the year. The employment of men of the armed reserve on work outside the ordinary sphere of their duty continued to be a matter of complaint.

The strength of the ordinary reserves, except in Darrang and Sibsagar, was again inadequate, but the scheme for the reorganisation of the subordinate police, to which effect is now being given, provides for a large increase both in these and in the armed reserves.

Rewards, Punishments and Conduct.

233. Rewards were given in Excise, Opium, Arms Act and Gambling Act cases, in connection with vital statistics, and for general good work. One officer in Kamrup was awarded a watch. In the district of Lakhimpur of a sum of Rs. 180 offered as a reward by private individuals Rs. 150 was earned by two Sub-Inspectors.

The behaviour of the men of the armed reserve was, on the whole, satisfactory. The discipline of the ordinary reserve, except in Sylhet and Sibsagar, was fair. Lax discipline in Sylhet is attributed to the fact that one-third of the force had to be recruited from among local Muhammadans not of the best type. The number of Departmental punishments rose from 707 to 937, and the percentage of men punished on the actual strength from 23·7 to 30·09. Judicial punishments rose from 29 to 40. The increase is due to the enforcement of a higher standard of discipline. Of 56 criminal charges which were brought against the police only 20 ended in conviction. The few cases of bribery that were brought were all either dismissed, or ended in the discharge or acquittal of the accused.

Recruitment.

234. The difficulty of obtaining suitable men locally still continued and it was found necessary to recruit from the United Provinces. Mr. J. M. Coates, Superintendent of Police, who was placed on special duty in this connection, mentioned among the causes that tended to the scarcity of suitable local recruits, competition in the labour market, the high cost of living, insufficiency of leave, the want of elasticity in the leave rules and the stiffening of discipline. As an intermediate measure of relief the Government of India sanctioned a recruiting allowance of Rs. 6-8-0.

Casualties.

235. The number of resignations was 109, the same as in the preceding year There was an increase in the number of dismissals, particularly in Sylhet.

Railway Police.

236. The Assam-Bengal Railway Police force was strengthened by the addition of 2 Head Constables and 33 constables, who were sanctioned for employment on the Chittagong Jetties, of 26 constables for patrolling passenger trains running at night and of 2 constables for platform duty at Comilla station.

The force employed on the Dibru-Sadiya Railway remained unchanged. On the Assam-Bengal Railway there were only 3 running-train thefts against 16 in 1910. Of these one ended in conviction while two were undetected. This improvement is attributed to the removal of carriage foot-boards and to the establishment of train patrols.

Constables' Training School, Silchar.

237. Three hundred and seventy-four recruits passed out of the School as compared with 317 in 1910. Of these 174 could read and write on arrival. These figures include recruits received for training from the whole of the Eastern Range, and certain districts of the Western Range. Drill and discipline were good, but a number of the recruits had to be absent from time to time on escort and miscellaneous duties.

Rural Police.

238. There are chaukidars in the districts of Sylhet, Cachar and Goalpara only.

The percentage of chaukidars rewarded rose in Cachar, but the balance in the Chaukidari reward fund continued to be high, especially in Goalpara (Rs. 10,324).

Crime Statistics.

239. The total number of cases reported to the Police direct, and instituted by complaint before Magistrates and referred to the Police for enquiry was 16,180, of which 60·6 per cent. were investigated by the Police against 66·2 per cent. in 1910. Of the cases investigated 56·6 per cent. were sent up for trial, against 57·9 per cent. in 1910, 9,333 cases were decided during the year, and of these 52·4 per cent. ended in conviction, against 56 per cent. in 1910. There was an increase of 1,518 in the number of cases of serious crime, and of these 1,511 were classed as thefts and burglaries.

False Cases.

240. In 77 out of the 411 cases declared by Magistrates to be maliciously false the complainants were prosecuted and 30 of these cases ended in conviction.

Criminal Investigation Department.

241. Good work was done by the Department in its systematic prosecution of up-country gangs such as Brajabashis, Maghya Domes and Mozaffarpur Sonars. A number of persons belonging to such gangs were bound down under the preventive sections of the Criminal Procedure Code, or convicted on substantive charges, at the initiative of the Department and with the help of the local police.

Information was collected about a gang of hereditary river pirates living on the border of Sylhet and Mymensingh, who, for generations, have infested the Meghna from Sylhet to Bhairab Bazar.

242. There was no political crime, but an officer of the Department was engaged for some time in a confidential enquiry in the Cachar district. Many references were made to Superintendents of Police in Assam in connection with Bengal crime and criminals. Political Crime.

SECTION 4.—Criminal Justice.

[For detailed figures, see statements appended to the Report on the Administration of Criminal Justice in Eastern Bengal and Assam during the year 1911 ; Statistics of British India, Part VI.]

243. Two Sessions Judges and a Subordinate Judge vested with the powers of an Assistant Sessions Judge were employed throughout the year. Criminal Courts.

The Magisterial staff consisted of 64 Stipendiary and 26 Honorary Magistrates, including 8 special Magistrates, of whom four were employed in Lakhimpur, three in Darrang and one in Nowgong.

244. Thirty-five thousand nine hundred and eighty-three criminal offences were reported during the year, of which 13,125 were dismissed under section 203, Criminal Procedure Code, and 934 were struck off as false. The Courts dealt with 21,259 cases in all, *viz.*, 15,324 under the Penal Code and 5,935 under Special Laws, an increase since 1910 of 1,498 and 319, respectively. Offences reported.

245. The total number of cases in which the complaint was rejected, or the case struck off as false, was 14,059 or 39 per cent. of the number reported. Rejected complaints and false cases.

246. Of 21,259 cases accepted as true by the Courts, 14,960 were brought to trial. Cases found to be true.

ORIGINAL JURISDICTION.

MAGISTRATES' COURTS.

247. One hundred and sixty-nine cases were decided by District Magistrates, 13,659 by other Stipendiary Magistrates, and 885 by Honorary Magistrates and Benches. Disposals.

248. The number of witnesses examined during the year was 50,784. Of the total number of witnesses who attended, 54,411 were discharged on the first day of the trial, while 443 were detained for more than three days. Witnesses.

249. The percentage of cases in which a sentence of whipping was passed to the number in which it might have been was 8·67. The proportion was highest in Darrang (15·8) and lowest in Nowgong (4·5). Whipping.

250. Proceedings were taken under Chapter VIII of the Code of Criminal Procedure against 1,830 persons. The number of persons dealt with under this Chapter was largest in Sylhet (1,579), where there was a marked increase (355) in the number of proceedings of this nature. Security for keeping the peace and for good behaviour.

251. Under section 250 of the Code of Criminal Procedure, 64 complainants were ordered to pay compensation to accused persons, the accusations brought having been found to be frivolous or vexatious. Frivolous or vexatious accusations.

COURTS OF SESSION.

252. There were 21 cases pending for trial before the Courts of Session at the beginning of the year. Of 194 cases committed during the year, 183 were disposed of, and 29 were pending trial at its close. The commitments exceeded those of 1910 by 15. Commitments, etc.

253. Of 478 persons, 386 were tried and 87 remained under trial at the close of the year. Of the persons tried, 264 were convicted and sentenced in the Sessions Court, the cases of 4 were referred for the orders of the High Court, and 118 were acquitted. Results of trials.

254. Eighty-five persons were tried by jury, and in the case of 38 of these the Judge agreed with the verdict of the jury. In the case of 47 persons tried by this procedure the Judge disagreed with the jury's verdict. In the case of 3 persons a reference was made to the High Court under section 307 of the Code of Criminal Procedure. Of these persons 2 were acquitted and one was convicted. In Sylhet and Cachar there was no trial by jury. Jury trials.

Trial by Assessors.

255. Two hundred and forty-five persons were tried with the aid of Assessors. The Judge concurred with the finding of both Assessors in 147 instances and with that of one Assessor in 52 cases and disagreed with both Assessors in 46 cases.

Punishment.

256. No death sentence was passed during the year. Fourteen persons were sentenced in the Sessions Court to transportation for life, 12 persons to transportation for a term of years and 220 persons to rigorous imprisonment.

APPELLATE JURISDICTION.

Appeals to High Court.

257. Eighty-three cases were decided on appeal by the High Court during the year.

Appeals to the Courts of Session.

258. There were 34 appeals pending before the Courts of Session at the beginning of the year. During the year 672 appeals were preferred and 674 were disposed of, leaving 32 pending at its close. The institutions exceeded those of 1910 by 45.

There were 1,231 persons concerned in the appeals of the year, and orders were passed in the case of 1,169 persons. The appeals resulted in the confirmation of the original sentence in 754 instances or 64·5 per cent., in modification in 233 instances or 19·9 per cent., and in reversal in 171 instances or 14·5 per cent. A new trial was ordered in the cases of 9 persons, and in the cases of 2 persons the proceedings were quashed.

Appeals to Magistrates' courts.

259. In the courts of District Magistrates 188 appeals were disposed of during the year.

REFERENCE AND REVISION.

Reference under section 307, Criminal Procedure Code.

260. Two cases in which the Sessions Judge dissented from the verdict of a jury were referred to the High Court under section 307 of the Code of Criminal Procedure during the year. In one case the view of the Judge was accepted and in the other that of the jury.

Applications for revision made to Courts of Session.

261. During the year 290 applications for revision, of which 285 were disposed of, were preferred to Sessions Judges. The orders of the lower courts were confirmed in the cases of 589 persons, a new trial or further enquiry was ordered in cases of 155 persons, and the cases of 51 persons were referred to the High Court.

Applications for revision made to District Magistrates.

262. District Magistrates decided 289 applications in revision during the year.

Receipts and charges.

263. The charges of the Criminal Courts in Assam amounted to Rs. 2,82,369 and the receipts to Rs. 1,84,711.

SECTION 5.—Jails.

[*See* Report on the Jail Administration in the Province of Assam for the year 1911; Statistics of British India, Part VI.]

General.

264. The number of jails and sub-jails remained the same as in the previous year. Eight thousand five hundred and ninety-four prisoners were admitted during the year against 8,406 in the previous year, but the number at the end of the year was 344 less than in that year, owing to more numerous discharges. Of the total number of convicts imprisoned, 49·55 per cent. were Hindus and Sikhs, 40·91 per cent. Muhammadans, ·27 per cent. Christians, and ·12 per cent. Buddhists and Jains.

Juvenile, female and literate offenders.

265. Fourteen (12 boys and 2 girls) juvenile offenders and 142 females were imprisoned during the year. The percentage of literate convicts was 5·7.

Under-trial prisoners.

266. The daily average of under-trial prisoners was 192.

Civil prisoners.

267. Eighty-five civil prisoners were received during the year as compared with 66 in 1910.

Discipline.

268. There were 4 escapes, one from inside and three from outside the jails.

The total number of offences committed by convicts during the year was 1,901, or 78 less than in the preceding year. Major offences increased by 71, while minor offences decreased by 139.

269. The daily average number of sick was 86·19 as against 58·21 in 1910, and the total number of deaths was 108 as against 56 in 1910. The death-rate increased in almost all the district jails except those at Shillong, Kohima, Aijal and Dhubri. The heavy death-rate is attributable to the unhealthiness of the year 1911 and to a certain extent to overcrowding. Health.

270. An average of 694·98 prisoners or 39·28 per cent. were employed on manufactures, and 119·77 or 6·76 per cent. on remunerative extramural labour. The cash earnings of the year amounted to Rs. 39,583, as compared with Rs. 61,344 in 1910. Employment.

271. The total expenditure on the maintenance of the prisoners rose to Rs. 1,48,753 from Rs 1,36,456, and net cost was Rs. 1,09,170 against Rs. 75,112 in the preceding year, being an increase of about Rs. 16 per head of average strength. Finance.

SECTION 6.—Civil Justice.

272. During the year the number of original suits instituted was 34,679, an increase of 1,472 over the figures of the preceding year. Of these, 24,136 were suits for money or moveables, 6,908 rent suits, and 3,639 title and other suits. In all 27,284 suits were valued at sums not exceeding Rs. 100. Civil Courts subordinate to the High Court.

273. District Judges disposed of 18 original suits, Subordinate Judges of 774 and Munsifs of 34,319. The average number of cases disposed of by each Munsif was 1,143·96. In Sylhet, where alone there are Munsifs proper solely occupied with civil work, the average of disposals per Munsif was 2,138. Disposal of suits.

274. There were 18,978 applications for proceedings in execution of decrees, and the number pending at the close of the year was 3,815. Full satisfaction was obtained in 2,603 and partial satisfaction in 3,359 cases, the total amount realised being Rs. 4,58,869. In 12,214 cases the proceedings were returned as unsuccessful. Execution of decrees.

275. As regards cases of a judicial nature other than suits and execution proceedings, 3,151 were instituted during the year and 3,048 disposed of. Miscellaneous cases.

The number of non-judicial miscellaneous cases instituted during the year was 627, the number disposed of being 604.

276. The total receipts from the Civil Courts in Assam amounted to Rs. 5,76,040, an increase of Rs. 18,184 over the receipts of 1910. The expenditure was Rs. 2,74,821 as compared with Rs. 2,67,038. Financial results.

277. The following abstracts relate to the administration of Civil Justice in the hill districts and the Eastern Duars :— Civil Justice in the hill districts.

Naga Hills.—Including 28 pending suits, there were 348 suits for disposal during the year 1911, of which 339 were decided. The total value of the suits was Rs. 8,479, as against Rs. 7,617 in 1910. Of 9 applications for the execution of decrees, this figure including 3 applications pending at the end of 1910, 7 were disposed of.

Khasi and Jaintia Hills.—One hundred and ninety-six suits were instituted during the year, against 194 in 1910. Of these, 185 cases were filed before British Courts and the rest before the Dolois in the Jaintia Hills. One case was received by transfer from other courts, and there were 10 cases pending from the preceding year. Of a total number of 207 cases which came up before the tribunals 198 cases were disposed of. The total value of the civil suits in various Courts of the district for the year 1911 amounted to Rs. 33,841 against Rs. 52,791 in the preceding year. Six appeals were filed before the Deputy Commissioner including one pending from the previous year. All of these were decided. Three appeals were preferred before and disposed of by the Commissioner, Surma Valley and Hill Districts. There were 130 applications for the execution of decrees, of which 62 were disposed of. The total amount realised was Rs. 15,043, as against Rs. 12,434 in 1910.

Garo Hills.—The total number of suits for disposal was 250, this figure including 21 pending from the preceding year, 97 received by transfer from other courts, and 5 reviewed under sections 99, 103, 108 or 371 of the Code of Civil Procedure. Of the total, 135 suits were decided. The total value of the suits was Rs. 13,070. The number of applications for execution of decrees was 35 which included 4 pending from the preceding year. Of these 32 were disposed of. The amount realised was Rs. 203, as against Rs. 631 in 1910.

Eastern Duars.—The number of civil suits instituted during the year was 242 against 245 in the preceding year. The number of suits for disposal was 287. Of these 248 were decided. The total value of suits instituted was Rs. 29,630, against

Rs. 33,439 in the preceding year. There were 188 applications for execution of decrees, this figure including 23 pending from the preceding year. Of these decrees 22 were wholly or partly satisfied, 57 were struck off for default, and 15 remained pending at the end of the year.

North Cachar.—The total number of suits for disposal was 61, this number including one suit pending at the close of 1910. Of these suits, 57 were decided. The total value of suits instituted was Rs. 7,676 as against Rs. 5,286 in 1910. The number of applications for execution of decrees was 28, this figure including 7 applications which were pending at the end of 1910. Seven applications were disposed of. The amount realised was Rs. 888 against Rs. 3,140 in 1910.

SECTION 7.—Registration.

[*See* Statistical returns of the Registration Department in Assam for the year 1911 ; Statistics of British India, Part VI.]

Registration offices.

278. There were altogether 37 offices at work as in the two previous years.

Document registered.

279. The total number of documents registered in the province rose from 67,196 to 71,192, the increase being marked under the heads " sales " and " mortgages."

Receipts and expenditure.

280. Receipts rose from Rs. 86,613 to Rs. 89,199, while the expenditure remained practically stationary, being Rs. 56,738 as compared with Rs. 55,755 in the previous year.

Working of the Muhammadan Marriage Registration Act.

281. The registrations effected under this Act have not made any considerable progress and show only a small increase over the figures of the last year. The expansion was checked by poor harvests in Sylhet, and the temporary closure of an office in Cachar for some months, while in the Assam Valley, except in Goalpara, the progress was retarded owing to the apathy of the Muhammadan community in this matter.

Working of the Indian Companies Act.

282. During the year 49 companies limited by shares and registered under Act VI of 1882 were at work, with an aggregate paid-up capital of Rs. 9,85,181, as compared with 43 companies with an aggregate paid-up capital of Rs. 9,58,470 at the close of the previous year. There was only one company limited by guarantee at work at the close of the year. Ten new companies with an aggregate paid-up capital of Rs. 17,793 were registered during the year. Insurance companies with comparatively small paid-up capital continued to constitute a large proportion of the new companies registered.

SECTION 8.—Municipal Administration.

[*See* Resolution reviewing the Reports on the working of Municipalities in Assam during the year 1911-12; Statistics of British India, Part VIII.]

283. During the year Part IX of Bengal Act III of 1884 was extended to the Goalpara Municipality, and Bengal Act V of 1880 was introduced in the Municipalities of Sylhet, Dhubri, Goalpara, Gauhati, Nowgong and Dibrugarh. The boundaries of the Golaghat Union were revised and rules framed by the Sylhet Municipality under the Hackney Carriage Act, XIV of 1879, were confirmed. Though the number of meetings held by municipal bodies fell from 171 to 148 and 11 failed to hold at least one meeting in each month, the average percentage of attendance rose from 60·34 to 63·99.

Taxation.

284. General or partial revisions of assessment were carried out in 10 municipalities, which, in the case of Sibsagar and Nazira, yielded substantial increases. The average incidence of taxation per head of population was Re. 1-8-5, against Re. 1-7-8 in 1910-11. There is still a reluctance on the part of certain towns to introduce a tax on holdings, and in some others the incidence of taxation is yet unduly low.

Income.

285. The aggregate income of municipal institutions, excluding opening balances, was Rs. 5,36,892, an increase of Rs. 1,80,010 on the figures of the preceding year, which was entirely accounted for by large grants, in aid of water-supply schemes, made by Government to the Shillong and Jorhat Municipalities, local income decreasing by some Rs. 600. Grants from Government amounted to Rs. 2,65,063 against Rs. 90,194 in the previous year.

286. The total expenditure of the year amounted to Rs. 4,12,757 as compared with Rs. 3,40,420 in 1910-11. Expenditure.

287. Capital charges on account of water-supply rose from Rs. 19,970 to Rs. 81,881, while those for maintenance fell from Rs. 27,018 to Rs. 21,762. Gauhati and Shillong are the only municipalities with properly constituted water-works. The larger capital outlay is due to expenditure on the Shillong water-works, which were completed during the year under review, Government contributing Rs. 81,290 towards the project. Water-supply.

288. The expenditure on establishment, repairs, etc., of drainage systems rose from Rs. 6,458 to Rs. 8,838, but the capital outlay on drainage fell from Rs. 3,402 to Rs. 453. The drainage systems of the towns of Sylhet, Tezpur and Dibrugarh are being investigated by committees which have been appointed in connection with the water-supply arrangements at those places. Conservancy and Drainage.

289. The aggregate closing balances amounted to Rs. 1,90,233, which was Rs. 1,24,166 in excess of those of the preceding year. At the close of the year three municipalities had outstanding loans to meet, but the liabilities were not heavy and on the whole the financial position of the municipalities was sound. Financial position.

290. There was a tendency to improvement in the accounts of all municipalities. The Examiner of Local Accounts, however, drew attention in some cases to defects in collection work and animadverted on the delay in introducing the new accounts rules. Audit.

291. The year was an uneventful one so far as municipal administration is concerned. It is, however, hoped that the labours of the committees, which the Chief Commissioner has appointed in several towns, will result in an impetus being given to the improvement of water-supply and drainage. General.

SECTION 9.—Local Boards.

(*See* Resolution on the working of Local Boards in Assam during 1911-12; Statistics of British India, Part VIII.)

292. No alteration took place as regards either the number or constitution of the Boards, but the number of successful meetings and the average percentage of attendance thereat declined slightly during the year under report. General.

293. The aggregate opening balance of the Boards was Rs. 4,10,435; their income during the year amounted to Rs. 16,99,522 and their expenditure to Rs. 17,67,751. Ordinary income increased by Rs. 1,26,190 owing chiefly to larger contributions from provincial sources, while the ordinary expenditure of the year rose to Rs. 16,94,088. Apart from subventions from provincial revenue, which represented 38·23 per cent. of the Boards' income, the expansion of receipts from other sources was inconsiderable. There was a satisfactory decrease in the value of uncashed cheques at the close of the year. Finance.

294. The expenditure on education rose from Rs. 4,96,742 to Rs. 5,18,651, the increase being shared by the majority of the Boards—a fact which indicates that the Boards realise their responsibility in this matter. The work of the year. (a) Education.

295. The number of dispensaries increased from 116 to 121. Special arrangements were made by certain Boards for dealing with outbreaks of epidemic disease, and all those in the Surma Valley, except Hailakandi, employed epidemic doctors. The Gauhati, Silchar, Hailakandi and Sylhet Local Boards continued the policy of deputing Sub-Assistant Surgeons to attend markets for the distribution of medical relief and the results achieved were very encouraging. (b) Medical.

296. The expenditure under these heads fell from Rs. 1,51,508 to Rs. 1,39,865. The inception of measures for the systematic improvement of the water-supply and sanitation of rural areas however is engaging the attention of the Chief Commissioner, who proposes shortly to summon a representative conference in order to advise him on this matter. (c) Sanitary improvements, water-supply and drainage.

297. A sum of Rs. 9,04,592 was allotted for Public works, of which Rs. 8,34,584 was already expended, the corresponding figures for the previous year being Rs. 10,17,373 and Rs. 8,51,821, respectively. The average lapse was reduced from 16·3 to 7·4 per cent., but the failure to spend allotments was marked in the case of the South Sylhet, Dhubri and Hailakandi Boards. (d) Public Works.

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PRO-TECTION.

A satisfactory feature of the year's working is the attention devoted by many of the Boards to the replacement of temporary bridges by permanent and semi-permanent structures.

(e) Veterinary.

298. Veterinary charges fell from Rs. 26,172 to Rs. 25,390. Though expenditure under this head was greater in the case of Assam Valley, the increase was more than counterbalanced by the heavy decrease which took place in the Surma Valley.

SECTION 10.—Military (Volunteering).

MILITARY (VOLUNTEERS).

299. The undermentioned Volunteer Corps were in existence during 1911-12 :-

1. Surma Valley Light Horse.
2. Assam Valley Light Horse.

The total number of volunteers was on 1st April 1912—

Officers	73
Rank and file	978

This number was made up as follows :—

Corps.	Officers.	Rank and file.	Reservists.	
			Officers.	Rank and file.
1	2	3	4	5
Surma Valley Light Horse	35	325	...	11
Assam Valley Light Horse	32	521	6	121
Total ...	67	846	6	132

SECTION 11.—Marine.

Nil.

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

SECTION I.—Agriculture and Horticulture.

(*See* Report of the Agricultural Department, Assam, for the year ending 30th June 1912.)

General.

300. Consequent upon the formation of Assam as a separate province, the Department of Agriculture ceased to have a separate Director and has been placed under the Director of Land Records, with a Deputy Director of Agriculture as his principal assistant.

Agricultural stations.

301. About 20 acres of additional land was acquired for the Jorhat farm for extension of experiments. In the Upper Shillong farm, about 30 acres of pine forest were cleared and brought under cultivation.

Fruit stations.

302. Fruit culture in the fruit garden at Upper Shillong and the Tropical Plantation at Wahjain not having proved successful, both these stations were abandoned during the year and were leased to private persons. A new experimental fruit garden has been started nearer Shillong station and Mr. C. H. Holder of Shillong, who has already successfully grown several varieties of fruit in his own garden, has been placed in charge of it.

Agricultural education.

303. A Government scholar of this province, who was sent to the Poona Agricultural College, completed his course in April 1912 and obtained the diploma of Agriculture of that college and two Agricultural graduates of the province are undergoing a post-graduate training. At the Upper Shillong farm, two Khasi apprentices are being trained for the post of the fieldmen demonstrator and two Lushai youths are being instructed in potato growing. A Gurkha *mali* received a training there in methods of fruit culture and has been sent to Tissama in the Naga Hills where a fruit garden has been started.

Experiment and research.

304. The work in connection with high-land soil investigations was continued at Jorhat and extended by the Agricultural Chemist and the Deputy Director of Agriculture, and some very interesting results have been obtained, showing that without the addition of lime rabi crops will not grow at all on this soil, even when manured with cowdung and phosphate in the form of bonemeal. Experiments with sugarcane were continued at Jorhat and the chief feature of the year's work was the remarkably good results obtained from three of the Barbadoes varieties, *viz.*, B376, B147 and B208.

Dissemination.

305. Demonstrations and the manuring of the winter rice with bonemeal were carried out in 9 villages in the Khasi Hills. The results were highly satisfactory and the practice of using bonemeal as a manure for paddy is rapidly spreading in these Hills. The spraying of potatoes with Bordeaux mixture as a preventive of disease was demonstrated in certain villages in the Khasi Hills with very satisfactory results.

Aid to the public.

306. The Entomological Collector, Bengal, toured in the province in connection with the question of combating insect pests on crops. The Mycological Collector of Bengal also visited the province in connection with outbreaks of fungus pests on various crops, chiefly potato, sugarcane, tomato and betel-nut. The central seed depôt at Dacca continued to supply seed, manures and implements to officers and others, associates and correspondents of the Agricultural Department in Assam.

Improvement of live-stock.

307. The breeding of Patna bulls for distribution with the object of improving the local breed of cattle was continued at Upper Shillong. Five young bulls were sold to Khasi cultivators. The poultry operations in the Lushai Hills continued to progress. The sheep-breeding operations in the Khasi Hills were also successful and the wool of the cross-bred sheep was valued at Liverpool at a very much higher rate than that of the Khasi sheep and appreciably higher than that of the Dumba.

Exhibition.

308. The usual show of flowers, fruit, field and garden produce, cattle, etc., was held at Shillong on May 24th, 1912.

Section 2.—Co-operative Societies.

[*See* Report on the working of the Co-operative Societies in Assam for the year ending the 30th June 1912; Statistics of British India, Part II.]

General.

309. The most important event of the year was the passing into law by the Imperial Legislative Council of the new Co-operative Societies Act (II of 1912).

Number of Societies.

310. The number of Urban Societies increased from 13 to 16 during the year. The increase is spontaneous and is no doubt due to the success of several of these societies, notably the Sylhet, Silchar and Gauhati Town Banks.

PRODUCTION AND DISTRIBUTION.

Central Bank.

311. The only Central Bank in the Province is the Pioneer Bank at Shillong. Its paid-up share capital amounts to Rs. 12,000 and its capital from the sale of 5-year 7½ per cent. debentures to Rs. 63,150. It issued Rs. 25,100 in loans during the year as against Rs. 31,600 in the preceding year. The interest charged was in all cases 12½ per cent.

Urban Societies.

312. The total capital of Urban Banks, inclusive of reserve funds, increased during the year from Rs. 1,49,877 to Rs. 1,92,563. The amount deposited by members rose from Rs. 46,139 to Rs. 50,614 and by non-members from Rs. 42,552 to Rs. 67,759. During the year Urban Banks issued 600 loans, totalling Rs. 90,335, to their members. The average amount per loan was Rs. 150-8 and the rate of interest charged varied from 9 to 18¾ per cent. These societies draw their members mainly from Government officers and the professional classes of district and subdivisional head-quarters stations.

Rural Societies.

313. Rural societies have increased in number from 100 to 125 and their capital from Rs. 1,58,234 to Rs. 2,05,594. Members' deposits increased during the year from Rs. 75,073 to Rs. 88,378. Two thousand nine hundred and eighty-nine loans were issued for sums aggregating Rs. 1,17,729, the average per loan being just under Rs. 40. More Rural Societies might have been organised, but for the difficulty of exercising sufficient supervision, it being considered advisable to proceed slowly with organisation until some progress has been made in the formation of Unions.

Profits.

314. The profit of the Central Bank on the year's working was Rs. 4,054-1-2. All Urban Societies worked at a profit and the total profit earned was Rs. 10,548-0-2. The profits of Rural Societies amounted to Rs. 11,038-9-9, which was carried to Reserve Funds.

Resources.

315. No fresh Government loan was issued to Urban Societies during the year. Outstanding loans were reduced from Rs. 6,150 to Rs. 5,250.

SECTION 3.—Weather and Crops.

[*See* Report on Season and Crops of Assam for the year ending the 31st March 1912; Agricultural Statistics of British India, Volume I, Appendix A, Area and yield of certain principal crops in India.]

General character of the weather.

316. The spring rainfall was generally plentiful, though March was somewhat dry: it was much in excess of the normal in the Surma Valley and the hills on its north, in Jorhat and Sibsagar subdivisions of the district of Sibsagar; it was markedly in defect in Nowgong only. From June to September copious rain fell all over the Province and was in excess of the normal. Heavy rain again fell in October and the autumn rainfall was below the normal only in Nowgong and Naga Hills: during December and January there was practically no rain, but it was more than average in February and the winter rainfall in consequence reached the normal or exceeded it in most districts. There were floods in June, July and August, which affected in varying degrees the low land *aus* (early rice), rape and mustard, sugarcane, jute and cotton crops.

Area under cultivation.

317. The year was on the whole favourable for extension of cultivation and the net cropped area reported increased by no less than 174,154 acres; of these about 50,000 acres are accounted for by the reduction in the area of current fallow, which had exceeded the normal in the previous year, mainly owing to the excessive floods in Sylhet and Goalpara: the rest is attributed to the reclamation of new land. The increase was shared by the Garo Hills and all the plains districts except Goalpara and Kamrup and was most marked in Sylhet, Nowgong, Lakhimpur, and the Garo Hills. In Goalpara and Kamrup the late subsidence of floods interfered with the cultivation of rape and sugarcane and caused small decreases in cropped area.

318. The average outturn of *aus* rice is estimated at 92 per cent. of the normal and of winter and boro rice at 108 and 100 per cent., respectively. On this basis the outturn was approximately 1,981,080 tons against 1,90,3000 tons in the previous year. Owing to unusual lateness of floods, drought and some damage caused by insects, the yield of rape seeds was 18 per cent. below the normal. The outturn of linseed was also estimated at 19 per cent. below the normal. Sugarcane yielded 100 per cent. of the normal and on this basis the total outturn was estimated approximately at 31,000 tons. Notwithstanding the increase in area and percentage of outturn, the total outturn shows a decrease as compared with the previous year, which is due to the revision of the normal yield per acre. The average outturn of jute was estimated at 89 per cent. of the normal, the deficiency being ascribed to damage by floods between June and August.

Prices.

319. Wholesale prices of rice were generally higher in May and August than in the previous year, but were lower just before and after the harvest except at Dibrugarh. The year opened with the average retail price of rice at Rs. 3·497 per maund, which

rose steadily, as usual, up to August, when it was Rs. 3·975 per maund. A very slight fall occurred in September, but owing to the heavy rain and floods of October the price went up again in that month. With the end of the rains and consequent cessation of floods and the approach of the winter harvest a steady fall set in, which continued up to the first half of March 1912 when the price was Rs. 3·216. At the close of the year the price per maund was Rs. 3·299 or over 7 per cent. lower than in the preceding year.

SECTION 4.—Forests.

[*See* Progress Report of Forest Administration in the Province of Assam for 1911-12; Statistics of British India, Part IV(*b*), Finance and Revenue.]

Area of reserved forests.

320. The total area of reserved forests (4,315 square miles) was reduced by about 24 square miles during the year owing to disforestations in the Cachar and Garo Hills districts, that of unclassed forests being increased from 18,336 to 18,403 square miles. There was a large addition (73 square miles) to unclassed State forests in the Garo Hills due to disforestation and other causes, but the area of such forests decreased in all other districts mainly owing to extension of cultivation.

Six areas, comprising in all 52 square miles, were brought under settlement, in addition to 3 blocks (44 square miles) previously taken up, and a great deal of exploration work was also carried out during the year.

Working plans.

321. No new working plans were prepared or sanctioned. The existing plans were fairly worked up to, save where want of labour or demand prevented further progress. Fellings of *sâl* trees and climber cuttings in Goalpara did not progress well. In Kamrup, a large number of *sâl* stems included in the working plans still remain untouched owing to difficulties of extraction and to the greater accessibility of the unclassed State forests.

Communications and buildings.

322. A sum of Rs. 1,10,559, as against Rs. 76,965 in the preceding year, was expended on communications and buildings. The Goalpara Forest Tramway was extended by a mile and a half during the year. The tramway now extends to over 20 miles, including one mile of portable line. The total expenditure on the line to the close of the year amounted to Rs. 1,03,069. The tramway yielded a return of 6 per cent. on the outlay. Eighty-two and half miles of cart roads or tracks convertible into cart roads were newly opened at a cost of Rs. 18,896, and Rs. 33,601 were expended on new buildings, consisting mainly of quarters for subordinates and guard huts.

Forest offences and protection.

323. The total number of forest offences reported during the year was 698, as compared with 669 in the preceding year, the increase occurring in Sylhet and Lakhimpur Divisions. In the latter an endeavour was made to arrest illicit trade in the sale and export of country dug-outs. The number of cases brought into court was 254, of which 175 ended in conviction. In one case Rs. 4,500 were recovered from certain mahaldars in Cachar as a penalty for capturing three elephants outside the limits of their mahals. The other cases were of a petty nature.

Fire-protection has been extended to about one-fourth of the area of the reserved forests. Four fairly large fires broke out in the Kamrup Forest Division. 0·7 per cent. of the specially protected areas and 11·73 per cent. of those partially protected were burned. Otherwise the year was on the whole favourable.

Rubber.

324. In the Charduar rubber plantation experiments in regard to the formation of ærial roots were only fairly successful in the older compartments owing to the trees having lost vigour by severe tapping. This method is being tried also in the Kulsi plantation. In the former plantation, owing to labour difficulties, it was found impossible to complete the compartments sanctioned.

In both the plantations altogether 336·6 acres were worked and 5,287 trees were tapped yielding 11,104 lbs. against 9,087 lbs. in the preceding year. In the Kulsi plantation 88 acres yielded 4,389 lbs. of rubber. The produce was sold locally at Rs. 2-6-1 per pound against Rs. 3-0-1 in the preceding year. In addition to the above, 95,940 lbs. were produced outside the areas worked departmentally and on this royalty amounting to Rs. 20,990 was levied.

Rubber plants have been distributed to a number of villages in the Lushai Hills.

Sylviculture.

325. A small plantation of bamboo has been begun at Charduar in order to supply a good class of bamboo for departmental use, and a *simul* nursery was opened in Lakhimpur with a view to the increase of the supply of timber for the manufacture of tea-boxes.

PRODUCTION AND DISTRIBUTION.

General.

326. Specimens of 5 timbers were sent to Calcutta from Goalpara, but only one (*Alcendaphne sp.*) was reported saleable at rates which would cover expenses. *Sinul* and other woods are being examined in order to ascertain whether they are suitable for use as veneers for tea-boxes.

Forest villages.

327. A new village, Dilma in the Garo Hills, was established during the year. The forest villages in Kamrup have decreased in area.

Financial results.

328. Information under this head is included in Chapter V "Revenue and Finance."

329. The gross revenue was Rs. 11,17,569 against Rs. 13,01,640 in the preceding year and the expenditure rose to Rs. 8,32,158 from Rs. 8,02,514. The decrease in receipts was mainly due to the fact that advances to the total of Rs. 1,73,000 were received in Goalpara in the previous year for timber supplied during the year under review. Except Darrang all divisions were worked at a profit.

SECTION 5.—Manufactures and Mines.

330. The total area of land under tea rose from 351,592 acres to 354,276 acres, but the number of permanent labourers employed on the gardens decreased from 453,140 to 392,884. In addition to the permanent labour force, 35,223 temporary labourers were employed. The decrease in the former is attributed to the discharge of time-expired coolies and to difficulty in recruiting new coolies. Except in the districts of Cachar, Sibsagar and Lakhimpur, the weather was very favourable for the growth of tea. In Cachar the season came to an end early owing to unfavourable weather during the last quarter. In Sibsagar there was too much rain and in Lakhimpur blights of various kinds flourished owing to the wet weather.

The year's crop amounted to 179,053,017 pounds of manufactured tea. The total production of the year exceeded that of the preceding year by 2·2 per cent., a result which was due to the favourable weather conditions. The state of the industry may be described as prosperous; the area under tea increased, weather and rainfall were on the whole favourable, the demand for tea abroad was greater, and higher prices ruled during the year 1911 than in the previous year. The only drawbacks were the light shortage in labour, the increased cost of recruiting, and the physical inferiority of the imported coolies.

331. Seven prospecting licenses were granted during the year, three for oil in the Khasi and Jaintia Hills, one for oil in Cachar, two for coal in the Garo Hills, and one for corundum in the Khasi and Jaintia Hills. Six coal mines in the Lakhimpur district produced 294,243 tons of coal during the year. The royalty on coal amounted to Rs. 44,137.

The Digboi oil wells in Lakhimpur produced 3,565,163 gallons of mineral oil, the royalty on which amounted to Rs. 19,879. The output of limestone amounted to 102,910 tons, of which practically the whole amount was quarried in the Khasi and Jaintia Hills.

SECTION 6.—Factories.

REPORT.

332. There was no change in the number of factories (18) working during the year. They are classified as follows:—

Printing Press	2
Railway Workshops	4
Petroleum refinery	1
Pottery works	1
Saw-mills	10
	18

The average daily number of operatives employed was 2,971, including 180 children, against 2,875, including 161 children, in the preceding year.

Of the total number of factories, 8 were inspected once, 4 twice, 3 thrice and 2 more than 3 times; only one factory remained uninspected. The Chief Inspector of Factories and his assistants inspected 3 factories in the Surma Valley Districts and 6 in the Assam Valley Districts. The sanitary arrangements of all factories are stated

to be generally satisfactory and the health of the operatives was on the whole good. Statistics of mortality are not generally maintained, but a death rate of 26·3 per thousand on the average daily number was reported from the Lakhimpur district, where the number of factory employés is the highest.

Women and children were employed on light labour. The percentage of children employed on the total number of operatives increased from 5·6 to 6·0. They all held certificates under section 5 of the Act.

The number of accidents in all factories was 5. Of these, 3 were fatal and 2 minor. All the fatal accidents occurred in the Lakhimpur district.

There were no prosecutions under the Act.

SECTION 7.—Maritime Trade.

Nil.

SECTION 8.—Rail and River-borne Trade.

[*See* Report on the Trade carried by Rail and River of Assam during the year 1911-12.]

333. For the purpose of recording the trade carried by rail and river, Assam is divided into three blocks. A record of the trade of these three blocks by rail with one another and with other provinces is prepared in the Railway Audit offices. A similar procedure is followed in the case of steamer-borne trade. All traffic by country boat between Assam and Calcutta is recorded by special agencies maintained by the Calcutta Port Commissioners. The registering stations at Dhubri and Bhairab Bazar record all trade which enters or leaves the Brahmaputra and Surma Valleys, respectively, by country boat. Registration.

334. The total trade with other provinces amounted to 19,861,705½ maunds, the value of which was Rs. 1,858 lakhs; of this amount Rs. 581 lakhs represent imports and Rs. 1,277 lakhs exports. Total Rail and River-borne Trade.

Sixty-four per cent. of the exports and about 73 per cent. of the imports of Assam go to and come from Calcutta.

335. Sixty-seven lakhs of maunds of goods, totalling in value 581 lakhs of rupees, were imported into the province during the year 1911-12. Imports.

The total value of the imports of cotton, twist and yarn, was Rs. 19·9 lakhs, of which 56 per cent. by weight and 68 per cent. by value were foreign. Of the cotton piece-goods imported, 78 per cent. in value were manufactured in foreign countries and only 22 per cent. in India. The Surma Valley received the largest quantity.

The import trade of apparel rose from 10,679 maunds to 17,647 maunds. The increase occurred in the Brahmaputra Valley.

336. Tea is the most important article of export and its value represents about three-fourths of the total value of the exports by rail and river. Of the total quantity exported, 1,886,769 maunds and 723,195 maunds went to Calcutta and Chittagong, respectively, for sale or shipment to foreign countries. The exports increased by 307,030 maunds. The expansion was due to better outturn and higher prices. Next in importance to tea is timber. There was no variation of importance in the quantity of jute exported. The Lower Assam block, as usual, was the largest exporter of jute. Export.

SECTION 9.—Frontier Trade.

337. Efforts have been made during the year to secure greater accuracy in the registration of frontier trade by the appointment of paid Registrars on the busiest routes to replace the previous agents—Mauzadars and police officers. Trade Registrars worked during the year at Tambulpur in Kamrup and Bengbari in Darrang. A post sanctioned for Sadiya was not filled during the year owing to the disturbed state of the Frontier. The results so far are inconclusive. Of the total aggregate value of trade amounting to over 49 lakhs, more than 47 lakhs were reported as with Bhutan, but it was subsequently discovered that the latter figures had been fabricated and the Registrar was accordingly dismissed. The experiment will be continued in an extended form during the current year. System of registration.

338. The aggregate value of trade reported during the year was Rs. 49,66,107, to which imports contributed Rs. 7,64,357 and exports Rs. 42,01,750. For reasons given above these figures and those in the succeeding paragraph are valueless. Trade.

Bhutan. 339. Imports during the year were valued at Rs. 5,95,336, and exports at Rs. 41,82,688, the bulk being reported by the Registrar at Tambulpur.

Towang and Chardwar Bhutias. 340. A small increase in trade, from Rs. 24,011 to Rs. 29,631, is reported. Rubber appears for the first time as an appreciable item of import.

Akas and Daflas. 341. Trade, which is mostly in imported rubber, has diminished, probably owing to the disturbed state of the Frontier. There was practically no export of silk during the year under review.

Abors, Mishmis, etc. 342. Trade has diminished from Rs. 1,80,828 to Rs. 1,04,659 owing probably to the frontier troubles.

SECTION 10.—Public Works.

Personnel. 343. The Hon'ble Mr. F. St. G. Manners Smith, C.I.E., held the office of Chief Engineer and Secretary to the Government of Eastern Bengal and Assam in the Public Works Department until the province was reconstituted on the 1st April 1912.

The appointment of Superintending Engineer, Assam Circle, was held by Mr. C. A. White up to the 3rd September 1911, when he was relieved by Major H. W. Rushton, R.E., who officiated as Superintending Engineer to the end of the year.

Mr. G. R. Shaw was appointed as an Assistant Engineer (Imperial) and joined the Assam Circle in October 1911.

Changes in Divisions. 344. The Lower Assam Division was transferred to the newly-established Western Circle on the 30th November 1911. It was retransferred to the Assam Circle on the 1st February 1912.

Revenue. 345. The total Public Works revenue amounted to Rs. 95,683, as detailed below :—

	Rs.
Imperial Military	6,711
„ Civil	1,363
Provincial	87,609
Local	2,660
Irrigation, Minor Works and Navigation	*Nil*
Total Revenue	98,343

Expenditure. 346. Rents of buildings produced Rs. 70,627, and ferry receipts Rs. 17,948. The remainder was made up of miscellaneous items.

The total expenditure on Public Works amounted to Rs. 38,50,239, as detailed below :—

	Rs.
Imperial Military	58,103
„ Civil	51,951
Provincial Civil	29,26,181
Excluded Local Funds	7,38,961
Contribution Works	11,408
Provincial Irrigation Works	63,635
Total ...	38,50,239

Imperial Works. 347. The construction of combined Post and Telegraph Offices at Umran and Burnihat on the Gauhati-Shillong road was completed. The principal works in progress were the construction of a Telegraph Office building at Gauhati, the extension of the Post Office buildings at Tezpur and Nowgong, and the construction of a Post and Telegraph Office at Haflong. Combined Post and Telegraph Offices at Lungleh and Demagiri in the Lushai Hills neared completion.

Provincial Works, Civil Buildings. Local Government residences. 348. The expenditure on Original Works in connection with provincial buildings was Rs. 5,08,062, and on Repairs Rs. 1,87,948. The special repairs to Government House, Shillong, were completed during the year. Certain additions and alterations were also carried out.

Official residences.

349. Residences were built for the Mechanical Engineer in charge of the Water-works at Gauhati, for the Mistress of the Model Girls' School at Jorhat, and a business and waiting-room was added to the residence of the Commissioner at Gauhati.

Two bungalows in Shillong, "The Nest" and "Taragarh," were purchased as residences for the Inspector-General of Police and the Director of Land Records.

Residences were in process of building for the Assistant Superintendent of Police at Habiganj, the Executive Engineers at Silchar and Tezpur, for the Superintendent of Police at Tezpur, for the Sub-Deputy Collector at Sidli and for the Public Works Subdivisional Officer at North Lakhimpur. The Subdivisional Officer's residence at Lungleh in the Lushai Hills was under reconstruction.

General Administration.

350. The principal works were the construction of office buildings for the Sub-Deputy Collector at Sidli and for a Kanungo at Gosaingaon and additions and alterations to the Treasury building at Tezpur.

Law and Justice.

351. The old circuit-house at Silchar was converted into an annexe to the Deputy Commissioner's Court.

Record racks were placed in the new record-room of the Commissioner's office at Silchar. Work was in progress on the extension of the Munsifi at Karimganj, the construction of a double Munsifi at Sunamganj, the re-roofing of the main rooms of the subdivisional court-house at North Lakhimpur, and on quarters for the civil subordinate staff at Haflong.

Circuit-houses.

352. A new circuit-house was under construction at Jorhat. A motor-shed for the circuit-house at Gauhati and a guard-house for the circuit-house at Dibrugarh were built.

Education.

353. Additions and alterations were made to Pine Mount School, Shillong, and the workshop for the Fuller Industrial School was reconstructed. The High School buildings at Sibsagar were improved and two class-rooms were added to the Middle English School at North Lakhimpur. Additions and improvements were made to the High School building at Nowgong and to the Training School at Silchar. A school building and teacher's quarters were built at Haflong, and the roof of the Government High School building at Sylhet was improved.

Progress was made with the construction of a Muhammadan hostel at Sunamganj, an additional Moslem boarding-house at Silchar, a Hindu hostel and an additional school building for the Jorhat High School, a hostel and additions to the Middle English School at Kakojan, and a boarding-house for Mech boys at Dhubri. Materials were collected for the Murarichand College, Sylhet, and for a Muhammadan hostel at Dibrugarh.

Jails.

354. A European ward was built in the Sylhet Jail and a second gate was made for the Jorhat Jail. The water-supply in the Gauhati Jail was rearranged and the doors in the main ward of the Shillong Jail were improved.

The following works were in progress:—Reconstruction of an office, a guard-room and a work-shed for the sub-jail at Sunamganj; improvements to the jail buildings at Silchar; construction of a lock-up at Barpeta; an office and gateway for the Nowgong Jail; improvements to the Jail Hospital at Gauhati.

Police.

355. Police lines at a total expenditure of Rs. 1,17,445 were made at Barbheta, Jorhat, and a tank was dug for the supply of water. A barrack and cook-shed were built for the constables of the Nazira Union. An outpost was constructed at Lotasil near Gauhati, an investigating centre with staff quarters at Koriapara, and an investigating centre at Jamunamukh.

Quarters for the compounder of the Military Police Hospital at Kohima and for an Armed Inspector at Sylhet were put up. The Police office building at Sylhet was extended. Various sanitary improvements were effected in the lines of the Military Police at Dibrugarh, and a magazine was erected. Buildings were under construction at Sunamganj and Amguri, hospitals at Nowgong and Dhubri, quarters at Haflong, Dhubri, Aijal, Lungleh and Demagiri, and an outpost at Sorbhog.

Medical.

356. A *post-mortem* theatre and two boarding-houses were built for the Berry-White Medical School at Dibrugarh and a dispensary building at Mahendraganj. Quarters were provided for an Assistant Surgeon and a Sub-Assistant Surgeon at Shillong and additions and alterations were made to the dispensary buildings. At Aijal an office was built for the Civil Surgeon and two wards were added to the hospital.

PRODUCTION AND DISTRIBUTION.

The following works were in progress:—

Mortuary buildings at Habiganj, Karimganj, Maulvi Bazar and Silchar, wards for in-patients at the Mokokchang Dispensary, an additional ward for the Dispensary at Wokha and a Dispensary building at Gunjong. Improvements to the Charitable Dispensary at Kohima were also nearing completion.

Excise. 357. Various improvements and minor works were carried out at the Central Distillery at Jorhat. The works in progress were a bonded warehouse at Nazira and quarters for the staff of the bonded warehouse at Chhatak.

Registration. 358. A Sub-Registry office at Srimangal in the Sylhet district was under construction.

Agriculture. 359. A power-house was erected with an installation of 3 roller sugarcane mills and a Hornsby Oil Engine for the Jorhat Farm. The veterinary buildings at Shillong neared completion.

Forests. 360. Certain additions and alterations to the Forest office at Sylhet were carried out.

Public Works Department buildings. 361. An office for the Executive Engineer at Gauhati, store godowns at Goalpara and Barpeta, and magazines for the storage of explosives at Gauhati, Shillong and Umran were the principal works carried out under this head.

Communications. 362. On Original Works, Communications, a sum of Rs. 5,71,587 was expended as noted below:—

	Rs.
(*a*) Bridges	79,756
(*b*) New cart roads	72,843
(*c*) Bridle roads	29,600
(*d*) Dâk and Inspection Bungalows	64,975
(*e*) Survey of roads	1,759
Total ...	2,48,933

This expenditure was divided as follows:—

	Rs.
Assam Circle	2,17,299
Lushai Hills	31,634

The balance was utilised on improvements to existing roads.

Roads. 363. The metalling, raising and improving of the Assam Trunk road and the replacement of temporary bridges were continued. Four permanent bridges in the Sibsagar Division were completed, as also an iron bridge in the 12th mile east of Gauhati, and 2 screw pile bridges in the 73rd and 74th miles in the Lower Assam Division. The road was also raised and improved in the Lower and Central Assam Divisions.

The replacement of temporary bridges by permanent structures on the first fourteen miles of the extension of the North Trunk road in the Lakhimpur Division was completed and the survey for a further extension of the road was practically completed. The bridge across the Morajan was finished and other permanent bridges were under construction.

Work on improving the curves and gradients on Gauhati-Shillong road was continued. The total expenditure at the close of the year amounted to Rs. 1,32,244.

The total expenditure to the end of the year on the improvement of Dimapur-Manipur road amounted to Rs. 6,15,612. The work was in progress.

The improvements to Kothiatoli-Amluki road were continued.

Metalling of the roads in the neighbourhood of Jorhat town was continued and the cart road from the Noali to the Cinnamara road was nearly completed.

Special repairs to the bridges on the Golaghat-Dimapur road were completed.

The restoration of Goramur road from North Lakhimpur to Lohit was in progress.

The improvement of the old Rajgarh Ali road from Tinkhang to Namrup was in progress.

The Palasbari-Burdwar and Nalbari-Dhamdhama roads were taken over from the Gauhati Local Board for improvement.

Work on the Chapar-Sidli road, which is to serve as a feeder to the Eastern Bengal State Railway, was in progress.

On the Cachar-Manipur road the diversion at the Chiri river encroachment was completed and metalling was continued.

The Sylhet-Peterganj road was completed.

The embanked portion of Kanaibazar-Ratabari cart road in the plains was in progress and materials for bridges were collected.

The diversions of Sylhet-Cachar Trunk road at the 51st and 55th miles were in progress. Materials were collected for the replacement of bamboo bridges.

The improvement of Therria-Companyganj bridle road which included the construction of the Amani bridge was completed. The renewal of the boulder *bund* at the Juli river was also completed. The construction of the Bordeo bridge was in progress. The provision of open anchorages to the Tuichung suspension bridge, in mile 34 of the Lungleh-Demagiri road, was one of the most important works of this class in the Lushai Hills. The estimated cost is Rs. 11,000. Stones are being boated from Demagiri, a distance of 10 miles, and dressed. Concrete work on both banks was completed and stone masonry was in progress. European stores have also been collected at the site. The construction of a light wire suspension bridge across the Sonai river, another work of importance in the Lushai Hills, was also in progress.

Dâk and Inspection Bungalows.

364. A new Dâk Bungalow near the Railway station at Gauhati was practically completed at the close of the year. Inspection Bungalows were constructed at Sutnga in the Khasi and Jaintia Hills, and at Rongmachakgiri in the Garo Hills. Work on the Dâk Bungalow at Chhatak, the Inspection Bungalows at Saikhowa and Phulbari and those on the old Sema road in the Naga Hills was in progress.

Maintenance of roads.

365. On the maintenance of communications Rs. 8,31,173 were expended, the following being the classes and the length of the roads that were kept up :—

	Miles.
Metalled roads	375·74
Unmetalled roads including bridle roads	2,559·07

The total expenditure on the above covers the maintenance of Dâk and Inspection Bungalows and includes the contribution of Rs. 30,000 from the Manipur State towards the up-keep of the Dimapur-Manipur cart road.

Miscellaneous Public Improvements.

366. Land was acquired at Jorhat for European officers' residences. Certain improvements to the Station roads and the drainage channels and water-supply at Shillong were carried out at a cost of Rs. 8,356.

The water-works at Haflong were practically completed. Half the estimated cost was contributed by the Assam-Bengal Railway.

Contribution works.

367. A scheme was sanctioned to provide for a more ample and purer supply of water to the Civil Station and Cantonment at Shillong, but very little work was done during the year owing to the late arrival of the materials from Calcutta. An operation room for the Dhubri Hospital, a Hindu hostel for the Nazira Aided High School, and a combined Local Board and Municipal Office building at Tezpur were under construction. Well borings in Goalpara, Darrang and Sylhet were in progress. The levelling of the Golaghat *maidan* was continued.

Minor Works and Navigation.

368. Messrs. Kilburn & Co. dredged the Surma river at Shaitankhal. Snags were removed from the Barak and Kusiara rivers in Cachar and from the Desang and its tributaries in Sibsagar. Bandalling at the mouth of the Desang river was continued. The improvement of the Subansiri river for navigation was completed at a cost of Rs. 3,255. The cutting of a portion of the bed of the Kullong river in the Nowgong district, along the lower mouth of its intake, in order to improve its navigation, was commenced.

Railways and Tramways.

369. Improvements were made in the embankments along the banks of the Brahmaputra, Bhogdoi, Dikhu and Dehing rivers in the Sibsagar district. The restoration of the old Kharoi bund near Kolabari in the Tezpur subdivision was completed at a cost of Rs. 8,462.

During the year no new railway line was opened to traffic. The total mileage of open line in the Province was 871·52 miles, as shown below :—

(1) Dhubri and Gauhati sections of the Eastern Bengal State Railway ...	160·75
(2) Assam-Bengal Railway (Assam portion)	569·15
(3) Jorhat Provincial State Railway...	30·00
(4) Dibru-Sadiya Railway (including Colliery Branch)	91·52
(5) Tezpur-Balipara Railway	20·10
Total ...	871·52

PRODUCTION AND DISTRIBUTION.

Jorhat Provincial State Railway (*gauge* 2 *feet*).—The total capital outlay, including suspense, to the end of December 1911, amounted to Rs. 9,72,295. Gross earnings for the year 1911 amounted to Rs. 1,09,457 and the working expenses to Rs. 78,103, resulting in a net earning of Rs. 31,354 against Rs. 7,529 in the previous year.

Dibru-Sadiya Railway System (*gauge* 3'-3⅜").—This consists of:—

	Miles.
(*a*) Dibru-Sadiya Railway (including Saikhowaghat Branch)	86·02
(*b*) Ledo and Tikak-Margherita Colliery Railway	5·50
	91·52

The total capital outlay, including suspense, to the end of December 1911, amounted to Rs. 1,01,56,044. The gross earnings for the year 1911 amounted to Rs. 11,88,872 and the working expenses to Rs. 7,58,164, resulting in a net earning of Rs. 4,30,708 against Rs. 4,46,417 in the previous year.

Ledo-Tikak-Margherita Colliery Railway.—The capital outlay on this Railway remained the same as in the previous year, *viz.*, Rs. 16,94,069. The gross earnings for the year 1911 amounted to Rs. 83,118 and the working expenses to Rs. 52,689, resulting in a net earning of Rs. 30,429 against Rs. 32,441 in the previous year.

Assam-Bengal Railway (*gauge* 3'-3⅜").—The total mileage of the line open at the end of the year 1911 was 569·15 (Assam portion only). During the year, no addition was made to this.

The branch line from Kulaura station to the Kusiara river, 15·13 miles, was completed during the year, but was not opened for traffic until the 16th April 1912.

Surveys were completed during the year for light railways or tramways between the following places:—

Srimangal and Maulvi Bazar.

Maulvi Bazar and Monumukh.

Sealtick and Lalla Bazar.

Shaistaganj and Habiganj.

Shaistaganj and Begumkhan.

Eastern Bengal State Railway (*gauge* 3'-3⅜").—The total mileage of open line is 160·75 miles (Assam portion).

The Rangia-Tangla Branch of the Eastern Bengal State Railway has been completed, but was not open to traffic at the close of the year under report. An extension of this branch line to Tezpur is under the consideration of the Railway Board.

Tezpur-Balipara Railway (*gauge* 2'-6").—The total capital outlay, including suspense, to the end of 1911 amounted to Rs. 4,87,240, giving an average of Rs. 24,362 per mile. The gross earnings for the year 1911 amounted to Rs. 1,14,875 and the working expenses to Rs. 82,982, resulting in a net earning of Rs. 31,892 against Rs. 25,945 in the previous year. The Dwara-Therria Railway, which last year was purchased with its property and rights by Messrs. H. V. Low & Co., of Calcutta, was under completion.

Assistance rendered to Local Boards.

370. Local Board projects were professionally scrutinised and their works inspected by Executive Engineers from time to time. Certain of the Boards' works were also check-measured.

Cost of establishment.

371. The total charges for Public Works Establishment amounted to Rs. 6,70,559.

For the execution of Imperial Military and Civil Works a charge of 23 per cent. on the cost of works carried out is made. The amount charged during the year was Rs. 19,347.

The cost of establishment, *viz.*, Rs. 6,70,559, amounts to 29·68 per cent. of the outlay on works carried out by the Department.

CHAPTER V.—REVENUE AND FINANCE.

A.—Gross Revenue.

372. The receipts and charges of this Province during 1911-12 are shown in the table below :—

RECEIPTS.

Heads of Accounts.	Imperial.	Provincial.	Total.
1	2	3	4
	Rs.	Rs.	Rs.
A.—Principal Heads of Revenue—			
I.—Land Revenue	36,38,615	36,38,615	72,77,230
II.—Opium	5,13,410	...	5,13,410
III.—Salt	840	...	840
IV.—Stamps	6,01,949	6,01,949	12,03,898
V.—Excise	...	44,48,664	44,48,664
VI.—Provincial Rates	...	8,358	8,358
VII.—Customs	...	...	...
VIII.—Assessed Taxes	1,87,866	1,87,866	3,75,732
IX.—Forest	...	11,45,910	11,45,910
X.—Registration	...	92,374	92,374
XI.—Tributes	50,200	...	50,200
Total A.—Principal Heads of Revenue ...	49,92,880	1,01,23,736	1,51,16,616
B.—Interest—			
XII.—Interest	...	10,840	10,840
D.—Receipts by Civil Department—			
XVI-A.—Law and Justice (Courts of Law) ...	...	1,29,444	1,29,444
XIV-B.—Law and Justice (Jails)	...	1,03,003	1,03,003
XVII.—Police	...	1,03,460	1,03,460
XVIII.—Ports and Pilotage	...	72	72
XIX.—Education	...	88,664	88,664
XX.—Medical	...	16,185	16,185
XXI.—Scientific and other Minor Departments ...	...	22,861	22,861
Total D.—Receipts by Civil Departments ...	...	4,63,689	4,63,689
E.—Miscellaneous Civil Deposits—			
XXII.—Receipts in aid of Superannuation ...	30,062	4,548	34,610
XXIII.—Stationery and Printing	893	20,940	21,833
XXV.—Miscellaneous	5,915	41,805	47,720
Total E.—Miscellaneous Civil Receipts ...	36,870	67,293	1,04,163
H.—Railways—			
XXVI.—State Railways (Gross Receipts) ...	...	1,16,465	1,16,465
Deduct.—Working expenses	...	84,107	84,107
Net Railway Receipts	...	32,358	32,358
J.—Irrigation—			
XXX.—Minor Works and Navigation... ...	...	...	...
K.—Other Public Works—			
XXXI.—Civil Works—			
Civil	...	46,629	46,629
Public Works	1,363	87,609	88,972
Total K.—Other Public Works	1,363	1,34,238	1,35,601
L.—Military Receipts—			
XXXIV.—Military Works	...	...	...
Grand total	50,31,113	1,08,32,154	1,58,63,267

EXPENDITURE.

Heads of Accounts.	Imperial.	Provincial.	Total.
1	2	3	4
A.—Direct demands on the Revenue—	Rs.	Rs.	Rs.
1.—Refunds and Drawbacks	11,830	18,099	29,929
2.—Assignments and compensation	28,456	16,026	44,482
3.—Land Revenue	1,398	15,07,733	15,09,131
5.—Salt	4,775	...	4,775
6.—Stamps	26,775	26,775	53,550
7.—Excise	...	1,14,529	1,14,529
8.—Provincial Rates	...	...	...
9.—Customs	...	...	...
10.—Assessed Taxes	2,947	2,946	5,893
11.—Forest	...	8,40,830	8,40,830
12.—Registration	...	57,456	57,456
Total A.—Direct demands on the Revenue ...	76,181	25,84,394	26,60,575
B.—Interest—			
13.—Interest on ordinary debt	...	6,866	6,866
14.—Interest on other obligation	4,890	...	4,890
Total B.—Interest	4,890	6,866	11,756
D.—Salaries and expenses of Civil Departments—			
18.—General Administration	1,70,112	6,11,962	7,82,074
19A.—Law and Justice (Courts of Law) ...	...	9,34,162	9,34,162
19B.—Law and Justice (Jails)	...	2,60,739	2,60,739
20.—Police	...	19,05,068	19,05,068
21.—Ports and Pilotage	...	39,589	39,589
22.—Education	...	7,07,301	7,07,301
23.—Ecclesiastical	22,968	...	22,968
24.—Medical	...	5,75,046	5,75,046
25.—Political	...	4,41,099	4,41,099
26.—Scientific and other Minor Departments ...	74,099	1,33,679	2,07,778
Total D.—Salaries and expenses of Civil Departments	2,67,179	56,08,645	58,75,824
E.—Miscellaneous—			
27.—Territorial and Political Pensions ...	5,517	...	5,517
28.—Civil furlough and absentee allowances ...	...	...	...
29.—Superannuation allowances and pensions ...	...	2,32,665	2,32,665
30.—Stationery and Printing	159	1,62,925	1,63,084
32.—Miscellaneous	12,580	3,38,751	3,51,331
Total E.—Miscellaneous	18,256	7,84,341	7,52,597
F.—Famine Relief and Insurance—			
33.—Famine Relief	...	...	...
35.—Construction of Protective Irrigation Works ...	314	...	314
Total F.—Famine Relief and Insurance ...	314	...	314
H.—Railway Revenue Accounts—			
40.—Subsidized Companies	...	5,408	5,408
41.—Miscellaneous Railway Expenditure ...	...	9,643	9,643
Total H.—Railway Revenue Accounts	...	15,051	15,051
J.—Irrigation—			
43.—Minor Works and Navigation	...	63,676	63,676
K.—Other Public Works—			
44.—Construction of Railways	...	12,535	12,535
45.—Civil Works	52,264	33,16,096	33,68,360
Total K.—Other Public Works	52,264	33,28,631	33,80,895
L.—Military Services—			
47.—Military Works	...	...	...
Grand total	4,19,084	1,23,41,604	1,27,60,688

Abstract of Receipts and Expenditures.

	1910-1911.			1911-1912.			1911-1912 compared with 1910-1911.			
	Receipts.	Expenditure.	Net receipts or net expenditure.	Receipts.	Expenditure.	Net receipts or net expenditure.	Increase of revenues.	Decrease of revenues.	Increase of expenditure.	Decrease of expenditure.
1	2	3	4	5	6	7	8	9	10	11
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.(a) Principal Heads of Revenue.	1,50,59,366	27,03,844	1,23,55,522	1,51,16,616	26,60,575	1,24,56,041	57,250	...	...	43,269
II. Departmental Heads—										
(b) Interest ...	11,599	14,076	—2,477	10,840	11,756	—916	...	759	...	2,320
(d) Civil Department ...	4,55,467	55,76,162	—51,20,695	4,63,689	58,75,824	—54,12,135	8,222	...	2,99,662	...
(e) Miscellaneous ...	90,869	8,35,030	—7,44,161	1,04,163	7,52,597	—6,48,434	13,294	...	...	82,433
(f) Famine Relief and Insurance.	...	152	—152	...	314	—314	...	...	162	...
(h) Railway Revenue Accounts.	14,505	12,036	2,469	32,358	15,051	17,307	17,853	...	3,015	...
(i) and (j) Irrigation ...	...	38,343	—38,343	...	63,676	—63,676	...	...	25,333	...
(k) Other Public Works...	1,61,347	25,71,229	—24,09,882	1,35,601	33,80,895	—32,45,294	...	25,746	8,09,666	...
Total Departmental Heads...	7,33,787	90,47,028	—83,13,241	7,46,651	1,01,00,113	—93,53,462	39,369	26,505	11,37,838	84,753
Grand total	1,57,93,153	1,17,50,872	40,42,281	1,58,63,267	1,27,60,688	31,02,579	96,619	26,505	11,37,838	1,28,022

373. The expenditure of the year compares as follows with that of 1910-11.

LAND REVENUE.

No.	Minor heads.	Increase.	Decrease.
1	2	3	4
		Rs.	Rs.
1	Charges of District Administration	55,000	...
2	Management of Government Estates	...	4,000
3	Commission on collections	20,000	...
4	Survey and Settlement	...	1,19,000
5	Land Records	...	28,000

Excluding expenditure on State Railways the total expenditure of the Province amounted to Rs. 1,27,60,688, or Rs. 38,95,551 in excess of the year 1904-1905.

B.—Imperial Revenue and Finance.

SECTION I.—Land Revenue.

Land Revenue.

374. The total ordinary land revenue demand for the year amounted to Rs. 72,36,111, of which Rs. 69,08,979 were collected and Rs. 7,615 remitted on account of local calamities. As compared with the previous year, there was an increase of Rs. 1,00,773 in the demand and of Rs. 55,470 in the collections and a decrease of Rs. 22,226 in the remissions. The total collections of Miscellaneous land revenue rose from Rs. 6,01,658 to Rs. 6,22,599, while remissions decreased from Rs. 6,229 to Rs. 3,889.

REVENUE AND FINANCE.

SECTION 2.—Sources of the revenue other than land revenue.

Opium.

375. The receipts on account of opium amounted to Rs. 5,13,410 as compared with Rs. 5,13,272 in the previous year.

Revenue and Finance. Salt

376. There were salt transactions in the district of Sylhet only, where Messrs. Turner, Morrison & Co. had a salt bonded warehouse at Balaganj. The quantity of salt imported during the year amounted to 66,975 maunds, or 23,023 maunds more than in 1910-1911. There was an increase amounting to 1,587 maunds in the actual clearances of salt over those of the previous year which is attributed to the gradual disappearance of the boycott of imported salt. The average wholesale price per maund in the bazar in the district headquarters during the year was the same as in the preceding year, *viz.*, Rs. 2-4 a maund. The net revenue was Rs. 60,444 against Rs. 52,574 in 1910-1911, being an increase of Rs. 7,870 or 13·02 per cent.

Excise.

377. The total revenue demand for the year amounted to Rs. 44,50,807, which represents an increase of Rs. 1,17,996 or 2·7 per cent. The larger receipts, to which both the valleys of the Province contributed, under the heads "License fees and duty," were due to favourable settlements and to a greater consumption of country spirit and *ganja*. Of the total recoverable demand 99·93 per cent. was realised, the total receipts amounting to Rs. 44,43,910 against Rs. 43,10,310 in the previous year. The total expenditure of the Department rose from Rs. 1,02,783 to Rs. 1,09,765 and represents 2·47 per cent. of the total receipts. As in the preceding year two systems for the manufacture of country liquor were in force, *viz.*, the contract supply system and the outstill system. The revenue from country spirit rose by a little over 5 per cent., 98·29 per cent. being derived under the contract supply system. Receipts from *ganja* were better by Rs. 15,613 consequent upon the larger consumption of this drug, the total income yielded thereby being Rs. 6,88,645. The total revenue from opium rose to Rs. 25,22,355, being an increase of Rs. 59,646, or 2·36 per cent. The increase was due to good settlements and was shared by both valleys.

A steady decrease of drunkenness, since the substitution of the distillery for the outstill system, is reported from all districts. The year under review was the last of the term of the Jorhat Distillery contract, which expired on the 31st March 1912. It has been renewed for three years, with effect from the 1st April 1912, with the former contractors, Messrs. Forbes and Chalmers, the rates of duty and cost price being fixed at Rs. 3-2 and Re. 1-13, respectively.

Rules under the Eastern Bengal and Assam Excise Act were published during the year and have, together with the Act, been brought into force from the 1st April 1912 in the districts to which the Act applies *proprio vigore*.

Local opinion was freely consulted as to the location of shops, and the sites of several shops were changed in deference to the wishes of the public. One shop was abolished to meet the objections of the planting community.

Measures in connection with the smuggling of exciseable articles from Hill Tippera and Cooch Behar formed the subject of negotiation with those States. An arrangement with Cooch Behar has since been arrived at. The arrangements in regard to the Hill Tippera border excise shops are still under consideration.

Stamps.

378. The revenue collected under the Stamp and Court Fees Acts amounted to Rs. 11,85,941, as compared with Rs. 11,39,581 in the preceding year. The charges rose from Rs. 32,899 to Rs. 40,391. The increase in revenue is entirely due to the increased sale of Judicial stamps and was shared by both the Valleys of the Province. The number of vendors for the sale of stamps rose from 295 to 319, the most noticeable increase being in Sylhet. There was an increase of 14 in the number of stamp prosecutions and of Rs. 31 in the amount of the fines imposed. Twenty-one cases of the valuation of estates for the issue of probates or letters of administration were reported to Collectors as against 30 in the preceding year. All of them were enquired into.

Income-tax.

379. The total income-tax receipts during the year amounted to Rs. 3,75,045 as compared with Rs. 3,41,612 in 1910-1911, being an increase of 8·9 per cent. The increase was shared by both the Valleys. The number of persons finally assessed and the final demand for the year were 4,436 and Rs. 3,03,044, respectively.

SECTION 3.—Provincial Finance.

380. There was no separate Financial Settlement for Assam for the year 1911-1912, as it then formed part of the late Province of Eastern Bengal and Assam.

SECTION 4.—Local Funds.

381. The following statement shows the receipts and charges during the year of those Local Funds of which an account is submitted to Government :—

Class of Fund.	No.	Opening balance.	Receipts.	Total.	Payments.	Closing balance.
1	2	3	4	5	6	7
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Local Boards	19	4,54,029 15 8	16,80,659 12 10	21,34,689 12 1	17,11,300 7 1	4,23,389 5 0
Municipalities	16	65,746 8 9	5,35,642 0 3	6,01,388 9 0	4,12,499 13 3	1,88,888 11 9
Town and Bazar Funds	4	6,698 3 4	10,511 0 11	17,209 4 3	9,897 5 11	7,311 14 4
Cantonment Funds	2	2,606 11 2	12,353 10 7	14,960 5 9	12,398 3 2	2,562 2 7
District Chaukidari Reward Fund ...	3	24,204 8 2	5,518 13 6	29,723 5 8	9,50 12 0	20,132 9 8
Assam Williamson Education Fund	1	12,194 14 4	3,920 10 8	16,115 9 0	2,525 13 5	13,589 11 7
Grand Total ...		5,65,480 13 0	22,48,606 0 9	28,14,086 13 9	21,58,212 6 10	6,55,874 6 11
				28,14,086 13 9		28,14,086 13 9

382. Local Boards exist in all the plains district.

383. The large closing balance in the above account is due to some extent to Government grants given towards the close of the year not having been expended before the 31st March 1912.

SECTION 5.—Local Rates.

[*See* Report on the Land Revenue Administration of Assam for the year 1911-12.]

384. Except in the case of revenue-free and permanently-settled estates, the assessment of local rates is made on the land revenue demand, and the fluctuations in the latter demand, therefore, generally account for the fluctuations in local rates.

The current demand rose from Rs. 7,68,420 to Rs. 7,73,444, the increase being due to a corresponding increase in the land revenue demand as regards temporarily-settled estates. In Sylhet, there was a slight decrease in the demand owing to a revision of the assessment on certain permanently-settled estates as a result of objections. The total collections rose from Rs. 7,62,775 to Rs. 7,69,859, leaving a balance of Rs. 89,641 against Rs. 87,778 in the previous year. The percentage of total collections on total demand fell from 89·89 to 87·44.

SECTION 6.—Education Cesses.

Nil.

SECTION 7.—Municipal Revenue.

385. The subject of Municipal Revenue is discussed in section 8, Chapter III of this Report.

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICE.

SECTION 1.—Vital Statistics.

386. For the purpose of vital statistics the ratios are calculated on a population of 6,078,803, the population of the hill districts being excluded. The provincial birth-rate for the year was 31·84 per mille, being lower than that of the previous year by 4·68 per mille. The death rate was 23·51 per mille which represents a decrease of 10·86 per mille as compared with that of 1910 (34·37). The ratios of mortality from the chief diseases were : fever 13·09, dysentery and diarrhœa 2·14, cholera 1·21 and small-pox ·26. The highest mortality was from fever. The highest ratio of mortality from cholera was recorded in Cachar (2·61) and Sylhet (1·80) ; from dysentery and diarrhœa in Darrang (4·59) and Lakhimpur (4·26) ; from small-pox in Kamrup (·97); and from fever in Goalpara (25·62).

The registration of vital statistics in the hill districts is carried out on a modified system. The following table gives the recorded results of the year :—

District.	Birth ratios.		Death ratios.	
	Average, 1908—10.	1911.	Average, 1908—10.	1911.
1	2	3	4	5
Garo Hills ... ... / Khasi and Jaintia Hills	...	...	...	...
Shillong	18·98	25·29	12·00	15·54
Naga Hills	28·88	32·60	28·47	21·04
Lushai Hills	38·71	41·16	34·96	28·65

SECTION 2.—Immigration and Labour Inspection.

[*See* Resolution on Immigrant Labour in Assam for the year 1911-1912.]

387. The labour force dealt with in this report is that imported for employment on tea gardens in Assam, in the oil refinery at Digboi, in coal mines, and in certain saw-mills. The labour employed on railways is excluded, and no account is taken of those labourers who are temporarily employed during the cold weather and return to their homes in April and May.

The year was again a prosperous one for the tea industry. The demand for labour steadily increased, and there was an increase of immigration into every district of the province although this was not assisted by scarcity in the recruiting districts. Many of the District Officers speak of the gradual removal of the prejudice against Assam, and hold that the greater freedom of labour conditions and the attraction of land for cultivation are having effect in the recruiting districts.

General. 388. Last year's report described the suggested changes in the system of labour and recruitment, and stated that the Tea Industry and the Local Government had been consulted. The Chief Commissioner has had the labour question under his most careful consideration, and has formed very definite views as to what would be in the best interests of the Tea Industry. Inasmuch, however, as the subject is now under the consideration of the Government of India, he does not think that it would be proper for him to enter into a discussion on the present occasion of the points at issue.

Still further progress was made in the gradual substitution of free for indentured labour, and further areas were leased from Government by managers on special terms with the object of giving their coolies rice fields of their own to cultivate. The Chief Commissioner is anxious to continue the policy of his predecessors in the matter of making lands available for the purpose indicated, and will always receive sympathetically applications to that effect.

In the course of the year renewed complaints were received of the absconding of labourers from the tea gerdens in Sylhet into Hill Tippera, and of the manner in which warrants under Act XIII of 1859 issued by British Courts were executed in the State. The Indian Tea Association represented to the Local Administration that, while recognising that in the case of free labour the annual loss sustained to tea

gardens through the attraction of the low rents ruling in Hill Tippera must be faced, they were entitled to claim that warrants, when issued, should be executed effectively. The justice of this claim is undoubted, and the Chief Commissioner has addressed the Government of Bengal accordingly.

389. At the close of the year the total strength of the force was 791,462. The number of Act labourers fell to 14,279. Strength and distribution of the labour force.

390. The improvement in the health of coolies during transit continued in spite of the increase in the number of immigrants, and the year was a healthy one in the tea gardens. One hundred and two complaints of fraudulent or irregular recruitment were made, of which 51 were found to be true. Health.

391. Act XIII of 1859 continued to be largely used, and is again reported to have worked well on the whole. The successful working of the Act requires a certain amount of give and take on the part of both employers and labourers and the manner in which it was worked affords a gratifying testimony to the general good sense and good feelings that mark the relations between employers and employed in the tea districts. Act XIII of 1859.

392. Nine complaints of ill-treatment were made by coolies against their employers during the year. In two instances the complaints were found to be true. Applications for discharge certificates were successful in 214 cases. Managers during the year instituted 984 cases under Act XIII, of which 391 were decided in favour of the complainants. Ten cases of riot or unlawful assembly and five charges of assault were instituted by managers. The number of desertions of Act-VI labourers reported was 1,885. Miscellaneous.

At the close of the year the area of Government land settled direct with time-expired coolies was 185,404 acres, while several blocks of Government land were settled with tea planters on special terms to enable them to allow their coolies to cultivate. In addition to the land held direct from Government *ex*-coolies also occupy large tracts as sub-tenants. The relations between planters and the neighbouring villagers are reported to have been generally good.

SECTION 3.—Charitable Dispensaries.

[*See* Dispensary Returns of the Province of Eastern Bengal and Assam for the year 1911 and Statistics of British India, Part V.]

393. At the close of the year there were 206 hospitals and dispensaries working in the Province, of which 124 are supported mainly by local bodies and 15 by private persons or Missionary bodies, the others being maintained by the State. Dispensaries.

The number of patients treated at these dispensaries was 1,518,824 in 1911 against 1,488,214 in the previous year. Six of the dispensaries treated more than 20,000 patients each and 17 between 15,000 and 20,000, the number treated by the remaining dispensaries being below 15,000 each.

For indoor patients 639 beds were available in the State-public, Local Fund and private-aided dispensaries and the total number of in-patients treated was 8,195.

394. In the Leper Asylum at Sylhet, which is the only institution of its kind in the Province, 20 patients were under treatment at the close of the year. The daily average of patients treated rose from 17·32 in 1910 to 21·01 in 1911. Only 12 patients were treated with Dr. Deycke's Nastine during the first half of the year; but from the middle of the year this mode of treatment was adopted in the case of all patients in the Asylum and the results were very encouraging. Leper Asylum.

SECTION 4.—Lunatic Asylums.

[*See* Triennial Report on the Lunatic Asylums in Eastern Bengal and Assam for the years 1909, 1910 and 1911; also Statistics of British India, Part V.]

395. During the year 1911, 40 patients were admitted and 3 re-admitted into the Tezpur Lunatic Asylum, which is the only institution of its kind in the province. The number of discharges was 24, while 23 died in the Asylum, the year closing with 232 insane persons under confinement. About one-third of the inmates were criminal lunatics. Cultivators and tea-garden coolies constituted the majority of the admissions. Asylum population.

Fifty-three per cent. of the inmates remaining at the close of the year were suffering from mania and 35 per cent. from melancholia.

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The causes of insanity amongst the lunatics admitted during the year were ascertainable in 11 cases only. Of these, 10 cases were due to physical causes, *ganja*-smoking being responsible for 6 cases, epilepsy for 3 and pneumonia for 1.

Health of the inmates.

396. The number of admissions to hospital was 149 and the number of deaths 23. Of the total number of deaths, 10 were due to tubercle of the lungs, 4 to anæmia and 2 each to dysentry, fever, pneumonia and acute mania, while one committed suicide by jumping into the asylum well. Special steps are being taken to segregate completely the patients suffering from tubercular diseases.

Cost of maintenance.

397. The average annual cost of maintaining each lunatic was Rs. 98-4-10, or about a rupee in excess of what it was in the previous year.

Accommodation.

398. There was great overcrowding in the asylum as in previous years. The Inspector-General of Civil Hospitals has been asked to submit proposals for a considerable extension of the buildings. It is hoped that the provision of more accommodation will improve the general health of the inmates which has not been satisfactory.

SECTION 5.—Sanitation.

[*See* Annual Sanitary Report of the Province of Eastern Bengal and Assam for 1911.]

Municipal expenditure.

399. The aggregate income of Municipal institutions, excluding opening balances, was Rs. 5,36,892, or an increase of Rs. 1,80,010 on the figures of the preceding year, which was entirely accounted for by large grants-in-aid of water-supply schemes made by Government to the Shillong and Jorhat Municipalities. The total expenditure incurred on sanitation was Rs. 2,29,194.

Sanitary works and schemes.

400. The Shillong water-works were completed during the year, Government contributing Rs. 81,190 towards the project, and the town has now an excellent piped supply of water. Improvements were effected in the management of the water-works at Gauhati.

A drainage and water-supply scheme for the town of Sylhet is under consideration and was referred to a committee after the close of year.

Sale of quinine.

401. The new "Treatments" of hydrochloride of quinine, which have been substituted for the pice-packets of the sulphate, were introduced towards the close of the year 1910. By the beginning of 1911 sales were satisfactorily established in every district, 3,986 parcels or roughly 526lbs. being disposed of during the year against 392lbs. in the preceding year.

Epidemics.

402. The investigation into the *kala-azar* outbreak in Golaghat subdivision, mentioned in last year's report, was continued. A special hospital has been built at Khumtai for the accommodation of patients who are willing to undergo treatment with "Salvarsan." Two other local outbreaks of the disease, one in Kamrup and the other in Sylhet, were also investigated. In the case of Sylhet the disease was found to exist in endemic form in certain villages. The enquiry is still in progress.

SECTION 6.—Vaccination.

[*See* Vaccination Returns of the Province of Assam for the year 1911-12 and Judicial and Administrative Statistics of British India, Part V.]

403. Vaccinations are performed by 331 departmental vaccinators and by garden doctors on tea gardens. The number of operations during the year was 305,845 against 257,693 during the previous year; the increase occurred mainly in Sylhet and Kamrup. In the latter district a large number of Mahapurushias who had previously refused vaccination submitted to the operation. The percentage of success in operations by vaccinators, who perform by far the greatest portion of the work, was 98·19 per cent. in primary vaccinations, and 80·28 in re-vaccinations. Deaths from small-pox amounted to ·35 per mille against ·28 per mille in the previous year.

The inspecting staff consisted of 9 Inspectors and 18 Sub-Inspectors who inspected 64·11 per cent. of the primary vaccinations and 36·59 per cent. of the re-vaccinations. Inspections by Civil Surgeons have improved.

All the operations were performed with glycerinated lymph, manufactured at the Shillong Vaccine Depôt, which was of excellent quality throughout the year. An interesting experiment was carried out during the year in order to ascertain the cause of previous failures in the months of October and November. Special care was taken to ensure a strain of good potency in the lymph manufactured, and special means were adopted to keep the lymph supplied to certain districts at a low temperature till it was used. No special precautions were taken with the lymph supplied to other districts. The results showed that temperature or mode of storage had no effect on the quality of the lymph, which depended entirely on the methods employed in its preparation.

CHAPTER VII.—INSTRUCTION.

SECTION 1.—GENERAL SYSTEM OF PUBLIC INSTRUCTION.

Controlling Agencies.

404. The Education Department is controlled by the Director of Public Instruction. The Director is assisted by two Inspectors of Schools—one in immediate educational charge of each Commissioner's Division—and one Inspectress. The Assam Valley Inspector has an Assistant Inspector under him. Working under the Inspector in each Division is a Deputy Inspector who is also educational adviser of the Local Board. In certain of the subdivisions where the schools are numerous the Deputy Inspector is aided by a Sub-Inspector or Sub-Inspectors. These officers are all Government servants paid from provincial revenues. Sub-Inspectors confine their inspections to Primary schools; Deputy Inspectors inspect Middle schools, also both English and Vernacular, and indigenous institutions such as *Tols* and *Maktabs*; the Inspector is charged with the inspection of all schools in his circle and in particular of Secondary English schools and Training schools, while the Assistant Inspector, who has no independent authority, relieves the Inspector of a share of his administrative and other duties. The Inspectress is the adviser of the Department in matters affecting female education. She is entitled to inspect all classes of girls' schools and a number of the schools at headquarters stations are under her administrative charge.

Colleges are under the immediate charge of Principals who work under the Director. They are subject to inspection by the University, but not by any member of the general inspecting staff.

Schools of all classes are periodically inspected by the Divisional Commissioners and District and Subdivisional Officers.

Local Boards in Assam have been vested with certain powers over education. Each has an Education Committee, of which the Deputy Inspector of Schools is an *ex-officio* member.

In the Hill Districts schools are for the most part under Mission management. They receive aid from provincial revenues and are subject to inspection by the officers of the Department. The principal Mission agency in the educational field in Assam is the Welsh Calvinistic Mission, which has by its energy and liberality succeeded in making the Khasi and Jaintia Hills one of the most literate districts of the Province.

Grant-in-aid Rules.

405. The great majority of institutions in Assam are under public management. Out of a total of 3,982 recognized schools, 101 are managed by Government and 2,850 by Local or Municipal Boards. Of the remainder 653 are aided institutions.

Grants are given by local bodies or from provincial funds to assist private enterprize in education. These may be either capital grants towards the cost of land, buildings or equipment, or maintenance grants to supplement receipts from fees and private subscriptions. The system of grants-in-aid does not work particularly well in Assam. It has not been found possible to raise the fee income to a figure which would suffice for effective maintenance, and the greatest difficulty is found in obtaining any help from private subscriptions. Large incomes are very uncommon, towns are small and few in number, and public spirit is undeveloped.

Classification of institutions.

406. Educational Institutions in Assam are of three classes:—Collegiate, Secondary and Primary. Secondary schools are classed as High or Middle, and Middle schools as English or Vernacular. Primary and Middle Vernacular schools form one system, Middle English schools and High schools another. But the pupil who passes out from a Primary or Middle Vernacular school can enter a High or Middle English school at any class for which he is qualified by the state of his advancement.

Collegiate education.

407. There are two Colleges in Assam, both State managed and both affiliated to the University of Calcutta. One is at Gauhati for the Assam Valley and the other at Sylhet for the Surma Valley. The Gauhati College is a first-grade institution affiliated up to the B. A. standard, the Murarichand College, a second-grade institution affiliated up to the Intermediate standard only. The Gauhati College is under the management of a Governing Body consisting of the Divisional Commissioner as President, the Principal as Vice-President and Secretary, and a senior Professor. A similar committee has recently been constituted for the Murarichand College under the presidentship of the Deputy Commissioner, Sylhet.

Secondary Education.

408. As already stated, Secondary schools are classed as High or Middle. High schools are those institutions which are permitted by the University of Calcutta to present pupils for its matriculation, the examination for which fulfils the double function of a University Entrance test and a school leaving examination. There are 27 High schools for boys and one for girls in the Province, of which 11 are State schools, 9 are private schools towards the maintenance of which Government makes a fixed contribution, and 8 are unaided private schools. There are 10 classes in the full High School course. English begins to be taught in class III, and in class VII becomes the medium of instruction. Classes I and II are not generally formed, pupils taking their admission for the first time in class III after studying the elements in a vernacular school.

The course of instruction in a Middle English school is the same as in classes I-VI of a High school. There are 98 Middle English schools in the Province—95 for boys and 3 for girls. Of these 6 are managed by the State and 12 by Local Boards. Of the remainder 63 are aided and 17 unaided.

Middle Vernacular schools develop the curriculum of Primary schools on purely vernacular lines and offer a course of instruction complete in itself. Vernacular instruction beyond the primary stage is not popular, as is evidenced by the fact that there are in all only 41 Middle Vernacular schools in the Province (6 for girls), all of which are either managed or aided by the State or by Local Boards.

The foregoing remarks with regard to curricula do not apply to Girls' schools for which special syllabuses have been prescribed, following however the same general system.

All Secondary schools maintained or aided by the State or by public bodies or recognised by the University are managed by special Committees. In the case of Government High schools, these Committees work under the presidentship of the Deputy Commissioner or the Subdivisional Officer, according as the school is situated at the headquarters of a district or of a subdivision. The Inspector of Schools is Vice-President and the Head Master, Secretary. In the case of schools of lower grade also, an endeavour is made to enlist local interest by placing them under a Committee on which the various classes of the community are represented.

Primary education.

409. Primary schools are classed as Lower and Upper Primary, according as the course of studies extends to five or to six years. The main object of the Primary schools is to provide the masses with an elementary knowledge of reading, writing and arithmetic. In addition some geography is taught, and an endeavour is made to train the pupils in hand and eye and to impart to them some simple facts in connection with such subjects as agriculture, sanitation, hygiene and the system of administration. The course of study, which is somewhat elaborate, has been designed with a view to teaching the pupils to think for themselves, to training their powers of observation, and to imparting practical knowledge that will be of use to them in their every-day life. The syllabus has only recently been introduced, and in its more modern aspects will rather record an aspiration than, in any full measure, indicate performance until the quality of the teachers has been improved.

The number of Lower Primary schools for boys at the end of the year was 3,395. There were also 234 Lower Primary Girls' schools. The pupils numbered 128,345 boys and 16,309 girls. Over 2,800 of these schools were under Board or Municipal control, 50 were State schools and the remainder aided or unaided private schools. As indicating the value of the figures of attendance which are adduced it may be mentioned that 60 per cent. of the pupils are returned as "Not reading printed books," that is, as being still in the alphabetical stage of instruction. The mass of the pupils leave school illiterate.

There were in addition 74 Upper Primary schools for boys and 8 for girls with 3,806 boys and 527 girls in attendance. Fifteen of the 82 schools were under local bodies, 2 were State schools, 58 aided and 7 unaided private schools.

Fees and scholarships.

410. Education is free in Local Board or Government Lower Primary schools; in Upper Primary and Middle Vernacular schools fees range from about 4 to 10 annas a month; in Middle English schools they are a little higher; in High schools the charges ordinarily rise from Re. 1 in class III to Rs. 3 in the Matriculation class. Collegiate fees are also very low, the minimum being Rs. 4 and the maximum Rs. 5 per month. In addition ample provision is made for free studentships in schools and colleges, and there is a graduated system of scholarships by means of which a poor and deserving student may take his way from the village *pathsala* to the M. A. degree of the University. Special concessions in the way of scholarships and free studentships are made to Muhammadans, hill peoples and other backward sections of the community.

411. High schools are for the most part housed in substantial buildings. But these are, generally speaking, proving quite inadequate to the increased demand for accommodation. The same is true of hostel buildings. Middle schools as a rule are less respectably housed. Primary schools in Assam in having a house of their own may be regarded as well off. A few have more or less permanent buildings, but the great majority occupy flimsy structures, which are not kept in good repair by the villagers. Accommodation.

412. There is only one High school for girls in the Province, *viz.*, the Mission school for Khasi Christian girls in Shillong. The *purdah* and the system of early marriage prevent orthodox Hindus and Muhammadans from keeping their daughters long at school. There are however 9 schools which teach up to the Middle standard—three are Middle English. For the rest female education is confined to elementary work in Primary schools and, in a greater measure even than in the case of boys' schools, to the alphabetical stage of instruction—over 70 per cent. being returned as "Not reading printed books." Female education.

The Zenana system of instruction has not taken root in Assam. An experiment of this kind is, however, at present in progress in the town of Sylhet.

413. There are three Government Training Schools which train teachers for service in Middle and Upper Primary schools, one at Jorhat, one at Silchar, and the third at Shillong. The first two institutions train teachers for Lower Primary schools also. In addition there are Government Training Classes for Lower Primary school teachers at Jaiaw in the Khasi Hills and Tura in the Garo Hills, and two Mission classes aided by Government in the Naga Hills. A small number of Secondary school teachers and of inspecting officers are sent annually for training to the Government College at Dacca. There is no training school for women teachers. Training of teachers.

414. There is no College of Law or Medicine in Assam, but a Law class is held at Gauhati, which prepares students for the Pleadership Examination of the Calcutta High Court, and a Medical school is maintained by Government at Dibrugarh. This teaches up to the Sub-Assistant Surgeon's standard and serves a useful purpose in providing subordinate medical officers for the tea gardens and for Government service. There are no Engineering or Technical schools in the Province. But a number of students are awarded scholarships to enable them to read in the Engineering and Apprentice Departments of the Civil Engineering College at Sibpur and in the Ahsanullah School of Engineering at Dacca. There are two Industrial schools under State control, one at Shillong and the other at Kohima. They purport to train carpenters and blacksmiths. A number of stipends are granted each year to boys entering the Railway workshops at Dibrugarh, Jorhat and Tezpur for training as mechanics. Professional and Technical education.

415. There are two schools for the education of the domiciled community—Pine Mount School and the Loreto Convent, both at Shillong. Pine Mount School is a Government institution; at the present date its pupils are all in the elementary stage of instruction. The Loreto Convent aims at preparing pupils for the Junior Examination of the Cambridge University Board. Both are girls' schools, but take in little boys up to the age of ten. Older boys have at present to go outside the Province for their education. European education.

416. There is a considerable but declining number of private institutions following special courses of instruction on Oriental lines, *e.g.*, *Tols*, *Koran* schools, *Maktabs* and *Madrassas*. Indigenous systems.

In *Tols* or Sanskrit schools Brahmins are taught the elements of the various recognised departments of Sanskrit knowledge with a view to qualifying them to serve the Hindu community in capacities proper to their caste, *e.g.*, as *Pandits*, *Purahits*, *Jyotishes* and *Kabirajes*.

For the Muhammadan community a similar service is performed by *Madrassas*. The *Madrassa* is led up to by the *Maktab* and the *Maktab* by the *Koran* school. The *Koran* school finds its proper place in the premises of the *Masjid* where the *Imam* instructs the children of the congregation in the reading and the recitation of the *Koran* and the performance of their prayers; the *Maktab* carries the child's education on to the elements of the Islamic languages; and the *Madrassa* is designed to develop Islamic education to a stage at which its pupils are qualified to fulfil professional functions, *e.g.*, as *Maulvis* and *Kazis*.

These institutions are encouraged by the State by a system of examinations and rewards. An attempt is made to persuade *Tols* and *Madrassas* to temper their orthodoxy and improve their usefulness by admitting to their courses the elements of ordinary secular instruction in the vernacular.

SECTION 2.—Education.

[*See* General Report on Public Instruction in Eastern Bengal and Assam for the year 1911-1912, and Statistics of British India, Part VII.]

General. 417. The total expenditure on public instruction rose from Rs. 13,34,580 in 1910-11 to Rs. 16,09,062 in the year under report. The main burden of the increase fell on provincial revenues, but there was a considerable increase also in Local Board expenditure, in fee receipts and in subscriptions. The increased expenditure was accompanied by an advance all along the line. The number of pupils in attendance rose from 168,250 to 182,112, an increase of over 8 per cent. in a single year. It is gratifying to note that the increase was particularly marked in the Muhammadan community, the number of Muhammadan pupils having increased by nearly 11 per cent. Progress in female education, also, was particularly rapid, the returns showing an increase of fully 17 per cent. on the attendance of the previous year.

Collegiate education. 418. The percentage of male pupils to the male population of school-going age was 30·4 against 28·15 in the previous year and of female pupils 3·6 against 3·19.

The number of students in the two Assam Colleges rose from 230 to 295. With the provincialization of the Murarichand College, which took place at the beginning of the current year, and the initiation of considerable schemes for the improvement of both colleges, it may be expected that this rate of increase will be more than maintained and that Assam will soon be educating within its own borders a sufficient number of University students to render it independent of the neighbouring provinces for its supply of men qualified for the liberal professions and the administrative service of the State.

Secondary education. 419. The growing popularity of the hostel system is evidenced by an increase in the number of students in residence from 122 to 138.

The number of High schools was 28 against 27 in the previous year, the increase being due to the raising of the status of the Khasi Girls' School in Shillong. The number of pupils rose from 8,236 to 8,924—an increase which would have been more marked had the accommodation of the schools permitted. The number presented for matriculation rose from 355 to 394 and the percentage of success was 66·5 against 66·6 in the previous year.

Owing to the very unsatisfactory condition of its management and discipline, the aided High School at Habiganj has been taken temporarily under Government control.

The increase in the demand for English education is more particularly manifested in the returns for Middle English schools which increased in number from 85 with an attendance of 9,098 to 95 with an attendance of 10,922.

Middle Vernacular education did not share in the general progress. The number of pupils in attendance in Middle Vernacular schools was 2,753, or only 28 in excess of the previous year. The unpopularity of vernacular institutions beyond the Lower Primary stage is not to be wondered at. The course leads nowhere except to the poorly paid occupation of vernacular teaching and the rules are so framed as to discourage village schools from attempting instruction beyond the Lower Primary stage. An endeavour will be made to place Middle Vernacular instruction on a more favourable footing.

Primary education. 420. An increase in the number of Primary schools for boys from 3,436 to 3,469 and of pupils from 130,306 to 141,748 was accompanied by a rise in expenditure from Rs. 5,13,180 to Rs. 5,27,263. It is hoped that the subsidies which are now being given from Imperial Revenues for the advance of popular education will bring about shortly a larger increase in the number both of schools and pupils, and will allow at the same time of a considerable improvement in the very unsatisfactory rates of pay allowed to vernacular teachers.

Institutions for training of teachers. 421. The system of training remained unchanged. There were 3 Normal school and 6 Elementary training schools. The number of pupils in the training schools and classes was 402 against 361 in the previous year and the returns of trained teachers show an increase from 1,756 to 2,015.

There is no institution in Assam for the training of female teachers.

Law Class. 422. The number of Law students fell from 70 to 14 owing to the abolition of the law classes at Sibsagar, Silchar and Sylhet. The expenditure was Rs. 340 against Rs. 4,406 in the previous year.

423. The number of pupils in the Berry-White Medical School was 108 against 102 in the previous year. The number of Muhammadans increased from 13 to 16 and of hill-men from 7 to 10. Of the Hindu and Muhammadan pupils, 51 against 39 in the previous year were from the Assam Valley and 47 against 53 from the Surma Valley. The total expenditure rose from Rs. 24,047 to Rs. 24,745. Medical school.

424. There is little to be said in regard to Technical and Industrial education except that it will progress when, but not before, there is an industrial awakening in the Province. Effort is at present confined to a couple of schools teaching blacksmithy and carpentry at Kohima and Shillong. Technical and Industrial schools.

425. The general advance of secular education is accompanied by a decline in the number of Sanskrit institutions. The knowledge of Sanskrit is losing in public estimation. Patronage is not what it was and *tols* are being closed for lack of support. The number decreased during the year under report from 75 to 54 and the number of pupils from 1,644 to 1,237. The standard of Sanskrit learning is also on the wane. Tols.

426. Madrassa education remains popular with the more orthodox Muhammadans, and the year saw an increase in the number of pupils and institutions. This is matter for congratulation only in so far as it betokens a growing interest in education. It would be to the advantage of the community if the interest were diverted to more fruitful fields. The standard of instruction in Madrassas is low, and the education imparted of little or no advantage except to the small percentage of the pupils who pursue the course to its close in the hope of securing positions as maulvis, etc. The establishment of a Government Madrassa at Sylhet will, it is hoped, provide satisfactorily for the maintenance of Islamic learning, and permit of the conversion of a large number of the existing Madrassas into more efficient and more useful institutions. Madrassas Muhammadan orthodoxy.

427. As already noted, there was a satisfactory advance in female education. The number of girls' schools increased from 230 with 6,998 pupils in attendance to 252 with 8,203. The total number of women and girls including those in boys' schools was 17,931 against 15,799 of previous year. The increase disclosed is rapid if considered with reference to the figures of the previous year. With reference to the population of the Province it is slow, and will continue to be slow, until there is a sensible change in the attitude of the community to the seclusion and early marriage of females. The people of the hills are more liberal in this respect than the people of the plains, and in female education the Khasis lead the way. Female education.

428. The state of affairs with regard to European education remained unchanged and calls for no comment. European education.

429. The number of Muhammadan pupils in colleges was 27 against 30 in the previous year. This can only be a temporary set-back, as the number of Muhammadan pupils is increasing rapidly in all classes of schools. In particular, there is a very marked increase in the enrolment in Middle English schools—a most hopeful sign—as it indicates the probability of a similarly rapid increase in due course in High schools and colleges. The number of Muhammadan pupils in the various classes of recognised institutions and the rate of increase may be seen at a glance from the summary below :— Muhammadan education.

—	1910-11.	1911-12.	Percentage of increase.
1	2	3	4
High English schools	1,614	1,702	5·5
Middle English schools	1,789	2,307	29
Middle Vernacular schools	470	495	5·3
Primary schools	30,855	34,014	10·2

430. Progress in the education of most of the hill peoples and of the backward classes in the plains was maintained. Certain of the lower Hindu castes, *e.g.*, the Jogis and the Namasudras, are awaking to the advantages of education, but facilities are seldom present to enable muffassil pupils to take advantages of the education offered in High schools. Backward classes.

INSTRUCTION.

The scheme for the education of the children of tea-garden coolies is not making the progress which was expected.

Discipline.

431. The conduct of pupils in schools and colleges was not on the whole unsatisfactory. But there were a number of grave offences against decency, and the buildings of one High school were set on fire and destroyed—it is believed by some of its own pupils.

Some hope of improved conditions in this regard is to be found in the growing popularity of the hostel system.

SECTION 3.—Literature and the Press.

[*See* Statistics of British India, Part VII, Educational.]

Publications registered.

432. Thirty-seven publications were received and registered in 1911. This compares unfavourably with the numbers recorded in the two preceding years, *viz.*, 62 and 60. Not a single book was submitted under any of the heads—Drama, History, Law, Fiction, Philosophy or Science. Of the books registered, 17 or nearly half of the total are on religious subjects. Sixteen of the 37 are Assamese, 6 Khasi and only 1 Bengali. Both in the number and in the nature of the publications registered the returns bear witness to the general backwardness of the Province. The most striking disclosure is the literary poverty of Bengali in the Surma Valley.

Newspapers.

433. Three English, one Anglo-Vernacular, and twelve Vernacular newspapers were published during the year. With an exception here and there the tone of the press is unobjectionable. None of the local newspapers carry much weight.

SECTION 4.—Scientific and Literary Societies.

Nil.

SECTION 5.—Arts and Sciences.

Nil.

CHAPTER VIII.—ARCHÆOLOGY.

434. No new monuments were declared to be protected during the year under review, and expenditure on Archæological objects was confined to the up keep of monuments already protected, and borne on the books of the Public Works Department.

CHAPTER IX.—MISCELLANEOUS.

SECTION 1.—Ecclesiastical Jurisdiction.

Bishop of Calcutta and Archdeacon of Calcutta, 1814.

435. The Province of Assam lies within the ecclesiastical jurisdiction of the Bishop of Calcutta. By the Statute 53, Geo. III, Chapter 155, provision was made for the appointment of a single Bishop for the whole of India, and the Sovereign was empowered to grant to the Bishop such ecclesiastical jurisdiction and the exercise of such episcopal functions as His Majesty might think necessary for the administration of holy ceremonies and for the superintendence and good government of the Ministers of the Church establishment. Under the authority of this statute, letters patent for the Bishopric of Calcutta were issued under the date of the 2nd of May 1814, establishing the See of Calcutta, subordinate to the Archiepiscopal See of the Province of Canterbury, and constituting the Archdeaconry of Calcutta. The Judges of the Supreme Court of Judicature at Calcutta and the Members of the Council were appointed the King's Commissioners delegate to hear appeals from the decisions of the Bishop and his Commissaries.

Bishop of Calcutta Metropolitan, 1835.

436. The Statutes 3 and 4, Will. IV, Chapter 85, empowered the Sovereign to found and constitute the Bishoprics of Madras and Bombay, and constituted the Bishop of Calcutta Metropolitan. In 1835, the Bishoprics of Madras and Bombay were accordingly constituted by Letters Patent, leaving the Metropolitan jurisdiction with the Bishop of Calcutta.

Indian Christian Marriage Act, 1782.

437. Under the Indian Christian Marriage Act of 1872, the Local Administration has power to give licenses to ministers of religion to solemnize marriages, to appoint marriage registrars, and to license persons to grant certificates of marriage between Christians, but in other respects it exercises no ecclesiastical jurisdiction.

SECTION 2.—Ecclesiastical.

438. The Ecclesiastical establishment of the Province, paid entirely or in part by this Administration, consisted of the Chaplains at Shillong, Silchar, Darrang, Sibsagar and Lakhimpur. The incomes of the Chaplains at the four last mentioned stations are supplemented by grants from the Additional Clergy Society, the Calcutta Diocesan Additional Clergy Society, the Society for the propagation of the Gospel, and from funds raised by private subscription.

SECTION 3.—Stationery.

439. The total value of stationery supplied to this Province in 1911-12 was Rs. 72,208, including Rs. 10,837, the value of articles supplied to the Secretariat Press at Shillong.

SECTION 4.—Printing.

440. The main Press under the Government of Eastern Bengal and Assam was located at Shillong till December 1911, when it was transferred to Dacca, a branch Press being maintained at Shillong. The territorial changes which came into force on 1st April 1912 have necessitated the breaking up of the Eastern Bengal and Assam Press at Dacca, and the re-establishment of the Assam Secretariat Press at Shillong.

The cash receipts of the Secretariat Press at Shillong amounted to Rs. 5,204 against Rs. 6,989 in the previous year and the total expenditure to Rs. 1,26,951. The value of the outturn exceeded the actual amount paid to the workmen by Rs. 3,109.

SECTION 5.—Veterinary Department.

[*See* Report of the Civil Veterinary Department, Assam, for the year 1911-1912.]

Veterinary work.

441. The salient feature of the year is the remarkable increase in the attacks of rinderpest; out of some 48,000 cases of death reported from contagious diseases amongst cattle during the year, nearly half the number were due to rinderpest. The inoculation work carried out by the Veterinary Assistants showed a very considerable increase and the utility of this work can be judged from the fact that of 33,052 cattle inoculated in villages in which outbreaks of rinderpest occurred, only 881 died of the disease, while 7,276 deaths were reported amongst uninoculated animals. In all, 34,942 animals were inoculated against contagious diseases.

442. The Veterinary dispensary at Shillong has been completed and the construction of a dispensary at Silchar taken in hand. The Chief Commissioner has, since the close of the year, sanctioned the construction of a laboratory and hospital at Gauhati. Veterinary dispensary.

443. Little has been done as yet in connection with cattle breeding: only five districts keep stud bulls. The cattle herd at the Shillong Farm has proved successful and there is a considerable demand for bulls amongst the Khasis. A scheme for the improvement of the breed of cattle is under consideration. Breeding operations.

Sheep-breeding operations in the Khasi Hills are still in a rudimentary stage, but the superiority of the cross-bred offspring of Dumba rams is already apparent.

444. The sanctioned staff of Veterinary Assistants for the Province consists of 49 officers. Of this number, only 24 were actually employed during the past year, as Local Boards have in not a few cases been unable or unwilling to provide a second assistant. Since the close of the year some additions have been made to the district staff and it has been decided that steps shall be taken to bring it up to full strength with an adequate reserve staff, and that the necessity for entertaining two assistants for each Board should be impressed on the Local Boards. General.

A scheme providing for an efficient system of reporting outbreaks of cattle-disease and of communicating warnings to threatened areas is also under consideration.

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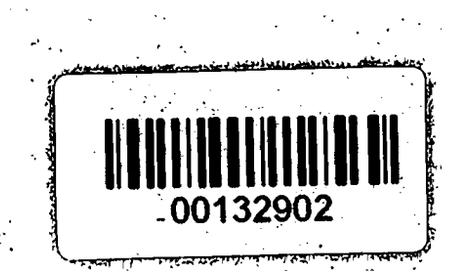
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